DOCUMENT RESUME

ED 424 343 UD 032 606

AUTHOR	Fashola, Olatokunbo S.
TITLE	Review of Extended-Day and After-School Programs and Their Effectiveness. Report No. 24.
INSTITUTION	Center for Research on the Education of Students Placed At Risk, Baltimore, MD.
SPONS AGENCY	Office of Educational Research and Improvement (ED), Washington, DC.
PUB DATE	1998-10-00
NOTE	76p.
CONTRACT	R-117-D4005
PUB TYPE	Information Analyses (070)
EDRS PRICE	MF01/PC04 Plus Postage.
DESCRIPTORS	*After School Programs; Community Programs; Cultural Awareness; Elementary Secondary Education; *Extended School Day; Language Arts; Outcomes of Education; *Program Effectiveness; Program Evaluation; School Recreational Programs; Study Skills; Supplementary Education; *Tutorial Programs
IDENTIFIERS	*Research Replication

ABSTRACT

This report identifies and reviews 34 programs that have been used as after-school programs by schools or communities, including extended-day programs and some supplemental school programs that have potential for after-school use. Five categories of programs are reviewed: (1) language arts after-school programs; (2) study skills programs; (3) academic programs in other curriculum areas; (4) tutoring programs for reading; and (5) community-based programs. The review discusses these programs in terms of the evidence of their effectiveness for improving student outcomes and the evidence of their replicability in other locations. The report also summarizes correlational research studies that have examined the effects of other after-school programs. Based on the program evaluations and the correlational research, the study identifies academic, recreational, and cultural components of effective after-school programs and presents recommendations for implementing these components. The report concludes that stronger evaluations of these and other current after-school programs must be conducted, and other well-designed programs need to be developed and evaluated to produce after-school programs that are effective and replicable for increasing student achievement and other student outcomes. Appendixes list contact persons for the programs reviewed and summarize the categorization of the programs. (Contains 104 references.) (Author/SLD)

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REVIEW OF EXTENDED-DAY AND AFTER-SCHOOL PROGRAMS AND THEIR EFFECTIVENESS

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Report No. 24 / October 1998

CENTER FOR RESEARCH ON THE EDUCATION OF STUDENTS PLACED AT RISK

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REVIEW OF EXTENDED-DAY AND AFTER-SCHOOL PROGRAMS AND THEIR EFFECTIVENESS

Olatokunbo S. Fashola

Johns Hopkins University

Report No. 24

October 1998

Published by the Center for Research on the Education of Students Placed At Risk (CRESPAR), supported as a national research and development center by funds from the Office of Educational Research and Improvement (OERI), U.S. Department of Education (R-117-D4005). The opinions expressed in this publication do not necessarily reflect the position or policy of OERI, and no official endorsement should be inferred.

The Center

Every child has the capacity to succeed in school and in life. Yet far too many children, especially those from poor and minority families, are placed at risk by school practices that are based on a sorting paradigm in which some students receive high-expectations instruction while the rest are relegated to lower quality education and lower quality futures. The sorting perspective must be replaced by a "talent development" model that asserts that all children are capable of succeeding in a rich and demanding curriculum with appropriate assistance and support.

The mission of the Center for Research on the Education of Students Placed At Risk (CRESPAR) is to conduct the research, development, evaluation, and dissemination needed to transform schooling for students placed at risk. The work of the Center is guided by three central themes — ensuring the success of all students at key development points, building on students' personal and cultural assets, and scaling up effective programs — and conducted through seven research and development programs and a program of institutional activities.

CRESPAR is organized as a partnership of Johns Hopkins University and Howard University, in collaboration with researchers at the University of California at Santa Barbara, University of California at Los Angeles, University of Chicago, Manpower Demonstration Research Corporation, University of Memphis, Haskell Indian Nations University, and University of Houston-Clear Lake.

CRESPAR is supported by the National Institute on the Education of At-Risk Students (At-Risk Institute), one of five institutes created by the Educational Research, Development, Dissemination and Improvement Act of 1994 and located within the Office of Educational Research and Improvement (OERI) at the U.S. Department of Education. The At-Risk Institute supports a range of research and development activities designed to improve the education of students at risk of educational failure because of limited English proficiency, poverty, race, geographic location, or economic disadvantage.

Abstract

This report identifies and reviews thirty-four programs that have been used as after-school programs by schools and/or communities, including extended day programs and some supplemental school programs that have potential for after-school usage. Five categories of programs are reviewed:

- language arts after-school programs,
- study skills programs,
- academic programs in other curriculum areas,
- tutoring programs for reading, and
- community-based programs.

The review discusses these programs in terms of their evidence of effectiveness for improving student outcomes and their evidence of replicability in other locations. The report also summarizes correlational research studies that have examined the effects of after-school programs. Based on the program evaluations and the correlational research, the report presents a set of components of effective after-school programs and presents recommendations for implementing these components. The report concludes that stronger evaluations of these and other current after-school programs must be conducted, and other well-designed programs need to be developed and evaluated, in order to produce after-school programs that can be considered to be effective and replicable for increasing student achievement or other student outcomes.

Acknowledgments

I want to thank the many program developers, implementers, evaluators, and school personnel who have given much time and effort to providing and reviewing the information presented in this report about their programs. Their cooperation and support have been essential in maintaining accuracy of program descriptions and evaluation information. I also thank the staff members of the National Institute on the Education of At-Risk Students who took the time to provide initial comments and suggestions on drafts of this report, and thank Kim Pierce, Joan Herman, and Carla Sanger for their reviews and suggestions regarding this work. Many thanks also go to John Hollifield, Barbara Colton, Bob Slavin, and Laurence Peters who provided positive feedback, and to Johns Hopkins University students Claire Whitner and Rebecca Zarutskie who worked diligently. The contents of the report and interpretations of the data remain, of course, the sole responsibility of the author.

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Introduction

Educators and policy makers have begun to show increasing interest in programs designed for use in the non-school hours, especially those designated for after school [see for example, Carnegie Corporation (1989, 1992; 1994a, b; 1995); United States Commission on Time and Learning (1992, 1994)]. A lot of emphasis has been placed on after-school programs for three primary reasons. First, attendance in after-school programs can provide children with supervision during a time when many might be exposed to and engage in more anti-social and destructive behaviors. Second, after-school programs can provide enriching experiences that broaden children's perspectives and improve their socialization. Third, and a more recent emphasis, after-school programs can perhaps help to improve the academic achievement of students who are not achieving as well as they need to during regular school hours.

Many children do not receive adequate supervision during the after-school hours (U.S. Bureau of the Census, 1987; Schwartz, 1996). When the dismissal bell rings, many children go home to empty houses (latchkey children), and many others "hang out" on the streets until their parents return home. Children left unsupervised after school often fall prey to deviant behaviors that are harmful to them, to their schools, and to their communities (Galambos & Maggs, 1991; Steinberg, 1986; Bronfenbrenner, 1986; Furby & Beyth-Marom, 1990). They are more likely to be involved in delinquent acts during these hours (Galambos & Maggs, 1991, Schwartz, 1996). Numerous reports have documented that a high proportion of juvenile crimes are committed between the hours of 3:00 p.m. and 6:00 p.m. each day, and these reports have created increased interest in strategies that will occupy students productively during these hours (CCSSO, 1987; Henderson, 1990; Jacoby, 1986).

For children who face academic or behavioral obstacles to success during the school hours, the after-school hours can be a time to attempt to eliminate these barriers and improve the education of the "whole child." However, accomplishing this goal is not as easy as it may seem. Concern for what happens to school-aged children during the after-school hours is not a new topic of discussion (Seligson, 1986, 1988, 1993; Marx, 1990, 1989; Morris, 1992; Morton-Young, 1995; Walberg, 1985; U.S. Department of Education, 1993; Carnegie Council on Adolescent Development, 1994). Many studies concerning this issue have been conducted over time, asking whether supervised care is better than non-supervised care, exploring differences in types of after-school arrangements, and trying to find the best types of after-school arrangements based on the needs of the family, the child, and the resources available.

In addition to providing supervision, after-school and extended school-day programs are now being seen as a means of improving academic achievement, providing opportunities for academic enrichment and providing social, cultural, and recreational activities (Campbell & Flaker, 1985; Boyer, 1987; Burns, 1992; Halpern, 1992). Recently, Congress has allocated $40 million to create "21st century after-school community learning centers" across the country, in hopes of improving the lives of children and the communities they live in during the non-school hours, including after-school and summer school. In his 1998 State of the Union address, President Clinton proposed substantially increasing federal funding for community based after-school programs. In particular, extended-day and after-school programs have been proposed as a means of accelerating the achievement of students placed at risk of academic failure due to poverty, lack of parental support, reduced opportunities to learn, and other socioeconomic and academic factors (Frymier & Gansneder, 1989; McGillis, 1996; McAdoo, 1988).

Because extended school-day programs almost always serve smaller numbers of children than the school as a whole, they can make effective use of resources that are less easily available during the school day. For example, a limited number of computers can serve the needs of after-school computer clubs, because there are smaller student-to-computer ratios. One small stage can meet the needs of a drama club because there are fewer students enrolled in the class. And volunteers willing to work with children on academic, cultural, or sports activities, especially older students, are usually more available after school than during school hours.

Although the benefits to be derived from the use of the after-school hours seem great, the most effective ways to capitalize on this opportunity are not well understood, and existing after-school efforts vary enormously in purposes and in operations. They range from purely daycare, to purely academic, to purely enrichment programs, to various mixtures of these. Also, their costs vary greatly, as some programs can be very expensive and may take resources that could be used more appropriately for other investments.

To identify effective strategies for students outside of school hours, particularly for at-risk students, it is essential to know what types of extended-day programs and particularly what specific programs are most likely to lead to valued outcomes. However, this kind of research is very limited. In some studies (Engman, 1992; Henderson, 1990; Mercure, 1993; Milch, 1986), academically based after-school programs have been loosely linked to improving some at-risk children's academic and social skills and work habits. But this body of literature largely studies the effects of after-school programs as a whole, rather than the

effects of specific effective and replicable after-school or extended school-day models or programs.

There are few studies of the effects of specific after-school programs, and those that exist have found highly inconsistent outcomes. Selection bias is a frequent problem, as students who voluntarily attend various after-school programs may be different from those who do not choose to do so. Further, the limited research has primarily involved middle-income Caucasian students, making the results difficult to generalize to disadvantaged or minority children. Circumstances surrounding the type of care provided, the kinds of students who attended the different programs, and what the programs themselves entailed, have rarely been studied in detail. Different studies have yielded different answers to different questions about different issues relating to after-school child care.

The evaluation of after-school programs can be challenging (Blanton, Mayer, & Shustak, 1995). Frequently, after-school programs and the regular school-day programs are not directly connected, so studying the effects of the after-school program on regular school-day academics is difficult. After-school programs may exist in community centers, in clubs, or on school grounds, and they may serve students from many different schools.

Before addressing the effects of programs that take place in the after-school hours, we need to define the types of programs and their purposes. For this report, we distinguish between three different types of after-school arrangements: daycare, after-school, and extended school-day programs. Each of these types of programs addresses different issues and has different strengths.

Daycare Programs

Daycare programs do not necessarily have an academic focus or goals (although some may); instead, they emphasize recreational and cultural activities. They are seldom aligned with academic instruction provided during the regular school day, although some do provide homework assistance. Although some daycare programs may have academic components, the main goal of daycare programs is to provide students whose parents are working or otherwise engaged with a "safe haven." The periods of operation for the typical after-school daycare program are between the hours of 3:00 p.m. and 6:00 p.m., and the programs typically emphasize safety, a positive climate, and enjoyable cultural and recreational activities. Such programs primarily involve children from preschool to third grade. Licensing is required for daycare program staff, and many also require Child Development Associate degrees. A main distinguishing factor is that daycare programs require licensing for the sites

and the workers, whereas school-based after-school programs do not necessarily require licensing, as they serve school-aged children.

After-School Programs

After-school programs are more likely to involve school-age children only (ages 5-18) and emphasize academic as well as non-academic activities. Compared to daycare programs, after-school programs are more likely to provide transportation, a wider variety of recreational programs, and increased child-to-adult ratios. These programs are usually more affordable than childcare. Examples of after-school programs include Boys and Girls Clubs, the YMCA, Big Brothers/Big Sisters, some 4-H programs, ASPIRA, church programs, and municipal parks and recreation programs.

Some after-school programs offer specialized activities, using professionals or qualified persons and volunteers to provide instruction in such areas as ballet, tap-dancing, music, karate, and chess. These programs seek to help children make creative use of their free time. Students may enroll in these classes, or parents may enroll them, purely out of interest in the skills, not to satisfy any childcare needs. The classes often provide progress information to the children and to the instructors through, for example, badges or promotions to higher ranks in the Boy Scouts and Girl Scouts, recitals in musical classes, and tournaments in karate or chess classes. The classes provide children with opportunities to explore and develop skills, talents, and hobbies, and later to show these skills to their parents and others. Academic achievement, attendance, or other school-related outcomes may or may not be primary or secondary goals of these programs.

School-Based Academic Extended-Day Programs

This type of program takes place during the same after-school hours, but differs from daycare and after-school programs in that it is directly connected to what takes place during the school day. While daycare and after-school programs may or may not take place on the school grounds, the school-based academic extended-day program typically takes place inside the school building and provides a mixture of academic, recreational, and cultural programs. Regular school-day teachers and paraprofessionals are usually paid to stay at the school during the after-school hours.

As noted in its name, this type of model has a main academic focus, and the goals, outcomes, and methods of academic instruction are directly related to and aligned with what

happens during the day. Teachers conduct small-group or tutorial remedial classes, supervise homework clubs, and teach study skills and advanced or supplementary courses (e.g., foreign language or advanced science). Additionally, paraprofessionals and/or community volunteers may provide cultural and recreational programs. Teachers may also supervise and train volunteers or paraprofessionals to provide academic or nonacademic services. Extended school-day programs can be schoolwide or districtwide. They are rarely mandatory, but may provide greater or lesser inducements for children to attend.

Some programs invite community members to their program planning sessions and include them as teachers for some of the classes and activities. These individuals may be associated with churches, private and public corporations, law enforcement agencies, parent groups (e.g., PTAs), businesses, members of the armed forces, and other groups. In some cases, they make the after-school program a hub of community activity, and over time the program and the school may begin to have a broad impact on the community.

One recent trend in some extended-day programs is the development of curricula tied to district, state, and national goals, yet designed to be taught after school. Such programs may involve well-designed curricula, teacher training, and student assessments. These programs provide students with complete, well-tested approaches, resources, trainers, and so on, reducing the need for every school to reinvent the wheel. Some seem promising, have been widely used, and have at least anecdotal indications of effectiveness in individual schools that have made gains. However, many have not been used with at-risk students and, while they may have been assessed for implementation and enjoyment, few have been evaluated for achievement purposes using methods that would pass even the most minimal standards.

Focus and Methodology of the Review

The goal of this report is to examine current after-school and extended school-day programs, both to review the limited research on the effects of these programs on student achievement and to describe promising strategies that communities can use in partnership with schools to create effective after-school programs for all children in elementary and secondary schools. It is implicit in this review that all of the programs mentioned have been used with at-risk students.

This report identifies and describes programs with an educational focus that have been shown to have evidence of effectiveness for all children during the non-school hours.

We also include some programs that have little evidence of effectiveness as yet, but do have active dissemination and replicability materials that could be used by other after-school programs. Not all of the programs in this report were developed specifically for use after school. Some programs have been adapted for use during the after-school hours, and others are adaptable. For programs that can be adapted for use during the non-school hours, the evidence of effectiveness presented is usually not from use after-school but from use as supplementary programs during the regular school day. This review summarizes but does not examine in detail the benefits of different types of daycare, which is presented in various other studies (see for example, studies like Posner & Vandell, 1994; Galambos & Maggs, 1991; Vandell & Ramanan, 1991; Vandell & Corasaniti, 1988; Seligson & Allenson, 1993; Seligson, 1988, 1986; Steinberg, 1986). Ideally, this review would identify programs that have strong evidence of effectiveness and of replicability based on use in after-school academic settings, and these are the criteria used in our identification and description of the programs.

Literature Search Procedures

The broadest possible search was carried out for programs that had been evaluated and/or applied to students in after-school settings. Some of the sources of information for this review were the National Diffusion Network (NDN), Educational Resources Information Centers (ERIC), education journals, conferences attended, and personal communications. The National Diffusion Network (NDN) was a part of the U.S. Department of Education until its end in 1996. A Joint Dissemination Review Panel (JDRP), later called the Program Effectiveness Panel (PEP), identified promising programs that had evidence of evaluation and possible effectiveness, and these programs then qualified for dissemination through the NDN. Evaluation requirements for these programs were not rigorous, however, and many of the evaluations looked only at pre-post and National Curve Equivalent (NCE) gains as evidence of effectiveness.

Effect Sizes

Evidence of effectiveness in this review is reported in the form of effect sizes or NCEs. An effect size is the proportion of a standard deviation by which an experimental group exceeds a control group. To give a sense of scale, an effect size of +1.0 would be equivalent to 100 points on the Stanford Achievement Test scale, two stanines, 15 points of

IQ, or about 21 NCEs. In general, an effect size of +0.25 or more would be considered educationally significant.

Types of Programs and Their Evaluations

Thirty-four programs met the inclusion criteria included in this review. Programs included fell into one of five major categories. The first category includes programs that address a specific academic component of the curriculum— language arts. Programs included in this category are regularly used as supplements to the regular school-day program, but have been used during the non-school hours. The second category is study skills programs. Programs in this category address all areas of the curriculum, but focus mainly on teaching study and comprehension skills to low-achievers. The next category is after-school programs that address other specific areas of the curriculum, such as science or computer technology. This category also includes specific for-profit programs developed as enrichment programs specifically for use after school. The fourth category includes tutoring programs aimed at improving reading. These differ from the programs in the first category primarily because many of these programs are one-on-one tutoring programs. Some are adaptable for use in after-school settings and some are not. The fifth category consists of community-based after-school programs. These programs are not necessarily academic in nature but are sometimes located in schools, and sometimes operated as community-based and community-owned programs. In addition to those five types, we include programs that could serve as add-on cultural and recreational components of after-school or extended school-day programs, as this is an important part of after-school developments and activities.

The following sections describe some of the most widely used after-school and extended-day programs. We present the current state of the evidence, if any, and the apparent replicability of the model, especially with students placed at risk. In searching for evaluations and evidence of effectiveness, an emphasis was placed on studies that used experimental and control groups that were evaluated on appropriate measures of achievement and other outcomes. The study also included well-matched treatment and comparison groups that were also evaluated using the same measures. All of the programs described in this report are used in schools, except for some of the community-based programs.

The first group of programs in this report consists of programs designed to provide assistance to students experiencing difficulties or programs designed to provide enriching opportunities for students in language arts. They have all been evaluated for use among all

students, including students at risk. However, only one program in this section was specifically designed as an after-school program for students at risk and has been evaluated for that population (Extended-Day Tutoring Program in Memphis). The remaining programs in this section are presented as possible programs that can be used in after-school settings.

Language Arts After-School Programs

Books and Beyond

Books and Beyond (1995; Topolovac, 1982a, 1982b) is a voluntary reading program aimed at helping and motivating students in grades K-8 to read more recreationally and watch less television. The program strives to help students become more critical about the types of television shows that they watch. With the combination of discriminate television watching and enjoyable recreational reading, the ultimate goal of Books and Beyond is to improve reading skills and to improve students' attitudes towards books and reading. Students earn small awards such as theme folders, pencils, and gold medals if they read a certain number of books, depending upon grade level. Books and Beyond supplements the school's regular reading program, and has also been implemented in after-school or extended school-day programs.

When schools implement Books and Beyond, they develop a coordinating team which consists of the principal, library-media specialist, three teachers, and three parents. All teachers are informed about the program and encouraged to participate by reading aloud to their classes on a regular basis and by acting as role models who record their own recreational reading. The main implementation and operation of the program are usually the responsibility of the core team — including parents — rather than the individual classroom teacher.

When after-school programs implement the after-school version of Books and Beyond, the core team consists of a director and two or three staff coordinators who take on the responsibilities of the core team. Additionally, older students (junior high school and high school students) can be used as reading models, and they, along with parents, are responsible for keeping track of the books read.

The intended audience for this program is all students from varying SES backgrounds, including gifted, at-risk, special education, and bilingual students. Non-readers can participate in the program by having books read to them; readers can include tutors, study buddies, community readers, and/or caregivers. Schools operate Books and Beyond for

six to eight months, allowing sufficient time to build positive reading habits, and the program is implemented in the form of a read-a-thon.

Books and Beyond includes a parental component. Parent volunteers coordinate the record-keeping activities of the program, including tracking the books read by the students and the various awards presented. The program asks parents who work with the program at home to read to their children, take them to the public library, help them keep records of the books they read at home and at school, chart the amount of time they spend watching television, and model reading themselves.

Students in kindergarten through third grade have a goal of 120 books over the course of the program that they are required to read, or have read to them, if they wish to earn a gold medal award at the end of the program. Children in grades 4-8 are required to read 2,400 pages in order to obtain a gold medal. These goals are adaptable, depending on the needs of the children involved in the program. Books and Beyond typically receives support and endorsement from local businesses. Read-a-thon theme topics include Travel through Time, Jog America, Quest for Knowledge, Sports Decathlon, Around the World with Books, and Mysteries of the Deep.

The evaluations of Books and Beyond do not include evaluations of the program in after-school or extended school-day settings. The pilot evaluation of Books and Beyond was done in three evaluation sites (Books and Beyond, 1983), and the replication evaluation included a diverse group of students. In a Missouri study, the students in grades 2-8 were predominantly Caucasian middle-class students. In a Connecticut study, the students were in grades 2-6, and were of a variety of ethnic backgrounds. These students had been labeled at-risk for dropping out of school. Finally, students in a New York study were in grades 2-8, were of a variety of ethnic backgrounds, and had shown very low standardized test scores. The evaluation consisted of surveys of the students and their parents about the number of hours that the students had spent watching television as well as the number of books the students had read during the program. Students involved in the evaluations did not include all of the participants in the program, but rather, students who had read a minimum number of books (for example, 60 books in grades 2-3). Surveys were administered at the beginning and end of the sessions. The original study included a control group, but the differences in responses between the treatment and control groups were not statistically significant. All students, experimental as well as control, stated that they had decreased the amount of time they spent watching television, increased discrimination in their selection of television programs, increased the number of books they read, would be more likely to choose to read

a book than watch television (compared to the beginning of the program), and read more at home.

The limitations of these studies are clear. They rely on self-report data only and have no assessment of actual gains in reading achievement. The gains that were noted on pre-to-post surveys were also seen among non-participants, and the studies were limited to students who had read at least a certain number of books. These findings can only be considered suggestive at best.

Books and Beyond currently exists in over 5,000 schools in forty-five states, has been expanded to the preschool level with the Ready to Read program, and has also been adopted by 130 elementary schools in the United Kingdom. Books and Beyond has also been used as a stand-alone after-school and extended school-day program in schools, in boys and girls' clubs, and in some after-school community efforts in low-income housing projects. Books and Beyond has added a new program titled Math, Science, and Beyond, seeking to teach children mathematics and science during the after-school hours. This program is currently being developed and evaluated under the auspices of a National Science Foundation grant for use in after-school programs.

Junior Great Books Curriculum of Interpretive Reading, Writing, and Discussion

The Junior Great Books Curriculum of Interpretive Reading, Writing, and Discussion (JGBC) is a junior version of the Great Books Foundation program (Criscuola, 1994; Nichols, 1992, 1993; Friertag & Chernoff, 1987; Will, 1986; & Kuenzer, 1978). It strives to promote cognitive processing in reading comprehension and literacy in children in grades 2-12 by emphasizing three kinds of thinking: factual, interpretive, and evaluative. These three types of information about text are explored by children using a method of shared inquiry and interpretive questioning, which encourages children to realize that there is more than one answer to questions asked about the text they have read.

The JGBC is not a stand-alone program, but is used as a partial replacement of or supplement to the regular reading program during the regular school day. Some activities that the children in the JGBC program participate in include text-opener, reading the story twice, sharing questions, directed notes, interpreting words, shared inquiry discussion, and writing after the discussion.

When schools choose to engage in the JGBC program, the school is provided with a two-day, ten-hour, "Basic Leader" training course. Schools can also choose to enroll in optional one- or two-day curriculum leader training courses. During this training, core leaders are taught to conduct activities such as preparing units and discussing interpretive issues together. Students who participate in the program are usually enrolled for one semester, in which they study an anthology consisting of twelve selections.

In an evaluation of JGBC that researched the effects of the program on academic achievement in reading vocabulary during the school day, 150 JGBC students were matched with 120 control students in four schools, and tested on the ITBS (3 schools) and CTBS (1 school). This study included both urban and suburban populations. The JGBC schools on each site involved a control classroom and a treatment (JGBC) classroom. Teachers were randomly assigned to a group (using a coin flip) to determine whether they would be in the control group or the experimental group. In four of the schools, JGBC students outscored their control group counterparts (ES= +.24, +.34, +.39, and +.32). An additional internal evaluation of the program showed that students involved in JGBC demonstrated stronger interpretive thinking skills than did the students in the control group.

These results show the effects of JGBC in programs used during the school day, and not after school. JGBC was not originally created for use in after-school settings and has not been evaluated for such use, but has often been used in that way. The creators of the program are able and willing to help after-school programs implement JGBC in their specific programs either with teachers or paraprofessionals (volunteers, parents, and college students). JGBC exists in schools across the country.

Extended-Day Tutoring Program in the Memphis City Schools

In 1995, the Center for Research in Educational Policy at the University of Memphis developed an extended-day tutoring program for use in the public schools (Ross, Smith, Casey, & Slavin, 1996). This program was piloted in Memphis, Tennessee, for the first year. The goal of the program was to improve reading performances of students in grades 2-4 by group-tutoring the children during the after-school hours, using a language arts curriculum. The program was mainly academic, using materials adapted from the Success for All (SFA) reading program (Slavin et. al., 1996) and other reading strategies.

Teachers were trained in how to tutor students in reading using the Story Telling and Retelling (STaR) method used in SFA, as well as others, and used the Scott Foresman reading series. Some, but not all, of the schools involved in the program were Success for

All schools during the regular day. Students were selected into the program based on their need for additional instruction. They were taught how to read and retell the stories assigned to them using STaR, and to use additional follow-up activities and strategies, such as partner reading. Students enrolled in the program attended the extended-day tutoring program between one and four hours each week. After their language arts lessons, they had opportunities to engage in cultural, recreational, and other academic enrichment programs, such as book clubs, computer skill-building activities, and test-taking strategies.

The participants in the study included 656 Title I students in grades 2-4. Half of the students participated in the program, and half of them did not. The students were randomly selected into each group, but they were matched on the basis of standardized test scores, attitude, behavior, grade, and age. When the students were compared at the beginning of the project, students did not differ in their test scores. The evaluation consisted of two parts: formative and summative. The formative part of the evaluation consisted of a teacher survey and observation forms which measured level of implementation of the tutoring program. The summative part of the evaluation measured Tennessee Comprehensive Assessment Program (TCAP) scores at the end of the session.

Two issues that plague evaluations of non-mandatory after-school programs are attendance and selection of a control group. Both were factors in this study. The average attendance for the after-school tutoring program was 75%. For the study, the treatment group consisted of students who attended the program at least 50% of the time for some of the analyses, and for others, at least 80%. The students who did not attend, or who had low attendance, were added to the control group. The two groups were compared in various ways, using pre-reading test scores as the covariates. Overall, the greater the attendance rates, the more likely the students were to perform slightly better than their counterparts, with effect sizes ranging from +.11 to +.23. Additionally, students in third grade who attended 80% of the time or more were more likely to do significantly better than their counterparts in the control group, and also better than their counterparts in grades 2 and 4 of the treatment and control groups. The total increase in the number of NCE points for students in third grade was 8.5, and it was lower for students in other grades.

Difficulties in finding an appropriate control group also affected this study. For example, eleven of the thirteen schools showed correlations of +.94 or higher on the pretests between the control and treatment group students, but one school showed a moderate correlation (+.47), and another school showed a negative correlation (-.10), suggesting that the control groups and the experimental groups were not well matched. The initial analyses described above included the outlier groups.

Murfreesboro Extended School Program (ESP)

One of the most widely known community-based extended-day school programs is the Murfreesboro Extended School Program (ESP) in Murfreesboro, Tennessee. This program began in 1986 at one elementary school (Jones, 1994; Jones, 1995). The program has a clear academic focus, but also includes cultural and recreational elements.

The hours of the Extended School Program are in the morning from 6:00 a.m. until 7:45 a.m., and then after school from 2:25 p.m. until 6:00 p.m. At the end of the school day, students involved in the ESP program are divided into groups of twelve and provided with a qualified staff person who provides academic enrichment and support. Each day for 30 minutes, students are provided with tutors from Middle Tennessee State University, parents, and staff from the school, who help them with their homework. Following this, the students involved in the program are able to choose additional academic skills classes, in which they learn basic reading skills and basic mathematics skills, geography, science, study skills, and other higher order thinking skills, using the Paideia philosophy as the basis for the curriculum and instructional program. The Paideia program, based on the work of Mortimer Adler (1982), emphasizes engaging all students in intellectual inquiry, with a particular focus on great books and great thinkers. It uses small group "Socratic" seminars, coaching by teachers, peer tutoring, project-based learning, and other means of engaging students as active learners. Paideia principles are used as a general guide to reform, not as a specific strategy.

Cultural activities include music, violin and guitar, arts, computer clubs, and foreign language. Additionally, students have opportunities to engage in recreational activities, such as physical education, movies, handicrafts, dance, Brownies, and 4-H.

The program is now institutionalized in the Murfreesboro school district, with support from the central school district as well as site-based support. About half of the school-aged students in the district (25,000 students) are involved. Each school has a staff person provided by the district, the equivalent of a half-time assistant principal, who is mainly responsible for the extended school program.

The ESP program does not have evidence of effectiveness. It exists only in Murfreesboro, but has been sustained for eleven years.

The Coca-Cola Valued Youth Program

The Coca-Cola Valued Youth Program (1991) is a cross-age tutoring program designed to increase the self-esteem and school success of at-risk middle and high school students by placing them in positions of responsibility as tutors of younger elementary school students. The Valued Youth Program (VYP) was originally developed by the Intercultural Development Research Association in San Antonio, Texas. The original implementation of the program was funded by Coca-Cola, and implemented in collaboration with five school districts in San Antonio between 1984 and 1988, with approximately 525 high school tutors and 1575 elementary tutees.

The overall goal of the program is to reduce the dropout rates of at-risk students by improving their self-concepts and academic skills. This is done by making them tutors, and providing assistance with basic academic skills. The program also emphasizes elimination of non-academic and disciplinary factors that contribute to dropping out. For example, it attempts to develop students' senses of self-control, decrease student truancy, and reduce disciplinary referrals. It also seeks to form home-school partnerships to increase the level of support available to students.

When students agree to serve as tutors, they are required to enroll in a special tutoring class, which allows them to improve their own basic academic skills as well as their tutoring skills. The students who are involved as tutors are paid a minimum wage stipend. The tutors work with three elementary students at a time for a total of about four hours per week. They are taught to develop self-awareness and pride, which is expected to make them less likely to exhibit disciplinary problems.

Functions are held to honor and recognize the tutors as role models. They receive T-shirts, caps, and certificates of merit for their efforts.

The main evaluation of the Coca-Cola Valued Youth Program compared 63 VYP tutors to 70 students in a comparison group (Cardenas, Montecel, Supik, & Harris, 1992). The students in four San Antonio schools were matched on the basis of age, ethnicity, lunch eligibility, percentage of students retained in grade, scores on tests of reading, quality of school life, and self-concept. They were selected (not randomly) into the experimental group based on scheduling and availability, and the remaining students were placed into the comparison group. Nearly all of the students in both groups were Latino and limited English proficient. The control students were somewhat less likely to qualify for free lunch or to have been retained in grade.

Two years after the program began, 12% of the comparison students but only 1% of the VYP students had dropped out. Reading grades were significantly higher for the VYP group, as were scores on a self-esteem measure and on a measure of attitude towards school.

The VYP has been widely replicated throughout the southwest and elsewhere. In 1990, additional funding was provided by Coca-Cola for sites in California, Florida, New York, and Texas, and the program is now being extended into schools in Idaho, Oregon, Montana, and other states. The Coca-Cola VYP has also been used in after-school settings.

Project Success Enrichment

Project Success Enrichment (PSE, 1995) was originally developed to enrich the language arts of gifted and talented students (including low-income students) in elementary schools during the regular school day by providing them with learning activities that include higher order thinking skills, cooperative learning, interactive discussions, and shared decision making. Since its original development, it has been used among children of varying socio-economic, racial, and academic achievement levels. Teachers who incorporate PSE into their curriculum attend a two-day workshop and learn how to adapt their curriculum to the program's goals. Teachers plan their PSE curriculum in a structured and hierarchical manner specified by the model. Project Success Enrichment uses a whole-language approach to teach language arts, incorporating and connecting reading, writing, and thinking to specific academic processes. Students work on such language arts skills as imagery (use of metaphors and similes), vocabulary, sentences, literature, and formatting their work. They engage in writing short stories and poetry, drafting and editing their work, analyzing literature, and completing and evaluating projects.

Although PSE has a language arts and a visual arts K-12 component, the area that received validation from the National Diffusion Network (NDN) was language arts in grades 4-6, when used during the regular school day. In the main evaluation of PSE, the language arts performance of over 700 PSE students in gifted programs in grades 3 through 7 was compared to a control group, using an alternative assessment developed and validated by Sebesta (PSE, 1995). The work of all of the students in both the control and the experimental groups was randomly paired (using a random number table) and then given to the evaluators. Evaluators were asked to evaluate the products with ratings of whether the portfolio products were better than those of an average gifted student for the grade level being assessed, without knowing which students belonged to which groups. Results were analyzed using the sign test, and effect sizes were calculated using Cohen's "g." Overall, gifted students who had received

PSE outperformed comparison gifted students with respect to the number of "better" ratings. All of the differences between the two groups showed effect sizes between +.44 and +.50.

PSE is also involved in other national and developmental projects such as Applying Technology in Rural Education (ATIRE) and Project Step-Up.

Exemplary Center for Reading Instruction

The goal of ECRI (Reid, 1989) is to improve elementary school students' reading ability. This program emphasizes such reading-related skills as word recognition, study skills, spelling, penmanship, proofing, and writing skills, leading to improvement in decoding, comprehension, and vocabulary. ECRI has been developed and evaluated as a regular school-day and an after-school program.

ECRI teachers expect all students to excel. The lessons for ECRI are scripted and incorporate multisensory and sequential methods and strategies of teaching. In a typical lesson, teachers introduce new concepts in lessons using at least seven methods of instruction, teaching at least one comprehension skill, one study skill, and one grammar or creative writing skill. Initially, students are prompted for answers by teachers. As the students begin to master the information presented, fewer and fewer prompts are provided until students can perform independently.

In one evaluation of ECRI (Reid, 1989) during the regular school day, researchers investigated the effects of ECRI on students in grades 2 through 7 in Morgan County, Tennessee, and compared them to students in a control group who were using a commercial reading program. Both schools were tested using the Stanford Achievement Test (SAT) reading and comprehension vocabulary subtests. ECRI students outperformed those in the control group, with effect sizes ranging from +.48 to +.90 in reading comprehension, and from +.31 to 1.40 in vocabulary. Another evaluation of the effectiveness of ECRI on Latino bilingual students in Oceanside, California, Killeen, Texas, and Calexico, California (Reid, 1989) showed NCE gains that ranged from +6.4 to +25.7.

Although ECRI has been used mostly as a language arts program, it has also been frequently used as an after-school remedial tutoring program. The ECRI after-school program began as a remedial tutoring program at Brigham Young University in Utah, with goals of improving the reading skills of special education students and high school students who were behind in reading. The program currently exists as a reading clinic, in which future and current teachers are trained to help students with reading difficulties, using the ECRI method.

The main evaluation of this program was done comparing two groups of randomly assigned high school students with reading difficulties either to a control group that provided a generic method of reading remediation (control) or to a treatment group (ECRI). At the end of the school year, students in both groups were tested using a standardized test, and results showed that students who had been involved in ECRI made significantly greater gains on the standardized tests than did students in the control groups. ECRI is used in hundreds of schools nationwide.

Study Skills Programs

Study skills programs can be useful to at-risk students whose academic skills suffer as a result of lack of study skills. The study skills programs do not provide specific curriculum content, but emphasize how to successfully organize and retain information taught in the classroom. This section describes two study skills programs that were not originally created as after-school programs, but can be used in this manner.

Study Skills Across the Curriculum

Study Skills Across the Curriculum (SSAC, 1991; Olson, 1993; 1995a, b) is a program designed for students in grades 5-8 to improve their academic performance by teaching study skills. Particularly, the program seeks to improve performance in content areas and to better prepare the students for active, independent, and successful learning in high school.

This program teaches students a variety of active learning strategies for studying, and also teaches them how to prepare for different types of tests and examinations, such as multiple choice, true-false, essay, and short answer. Students are taught time management principles and strategies, SQ3R (a system for reading textbooks more efficiently), note-taking from lectures and readings, semantic mapping, and additional study skills such as underlining, highlighting, and listening skills.

When schools take on Study Skills Across the Curriculum, a core group of representatives from the school receives training. This team typically consists of representatives from science, social studies, math, and English. The group then forms an implementation plan for the program to ensure the use of the study skills across the curriculum. Additionally, parents are trained and encouraged to reinforce study skills when their children are engaged in homework activities.

This evaluation does not include evaluations of SSAC in after-school settings. The evaluation of Study Skills Across the Curriculum consisted of two parts. The first study compared the study skill patterns and performances of a group of 647 SSAC students to a group of 347 control students. Controlling for pretest differences, the SSAC students outperformed the control group on the study skills inventory (ES=+.52), which measured the extent to which different components of study skills taught in the program were used. The second part measured the performance of the students on a criterion-referenced study skills test created by the Study Skills group. Once again, the SSAC group students outscored the control group (ES=+2.76). However, the set of skills that were measured had not been taught to the control group.

The second part of the evaluation consisted of a comparison of academic report card grades earned by the students in the two groups at the end of the first and third quarters in English and science. Controlling for pretest differences, SSAC students outperformed the control students in English (ES=+.88) and science (ES=+.22).

Study Skills Across the Curriculum was not originally created for use in after-school settings, but has often been used in that way. The creators of the program are able and willing to help after-school programs tailor SSAC to meet their needs. SSAC exists in 1,000 schools across the country.

Project IMPACT

Increasing Maximal Performance by Activating Critical Thinking (IMPACT) is a language arts and mathematics program that trains teachers to use critical thinking, problem solving, and higher order thinking in mathematics and language arts with children in grades 3-12 (Winocur, 1977). Project IMPACT was not designed for but could be implemented in after-school settings.

With the help of Project IMPACT trainers, classroom teachers learn how to revise their current curriculum and include such critical thinking skills as inductive and deductive reasoning, problem solving, and decision making into their daily teaching. Implementation of the curriculum is self-monitored and peer-monitored, which involves other teachers, administrators, and project staff. Although the Project IMPACT curriculum was developed for use in mathematics and language arts, it has been expanded for implementation in science classes. Project IMPACT is used with high- and low-achieving students in urban, rural, suburban, public, and private schools.

Two evaluations of Project IMPACT have been done. These evaluations did *not* include the use of Project IMPACT in after-school settings. The most recent evaluation compared IMPACT students in grades 6-9 to matched students in a control group. The treatment students outperformed the control group on the Cornell Test of Critical Thinking with effect sizes of +1.81, +.64, +.42, and +.47 in grades six, seven, eight, and nine, respectively (Winocur, 1977).

Project IMPACT began in California, and has been adopted by 480 public school districts, 2,384 public schools, and 124 private schools. The program now has adoption sites in 42 states in the U.S. plus Guam and Puerto Rico.

Academically Oriented After-School Programs in Other Areas

This section consists of independent (sometimes commercial) programs developed specifically for use in after-school settings. Five of the programs (Voyager, Explore, Mindsurf, Foundations, Inc., and HOSO) were developed and are used by private organizations. These programs are currently being implemented in after-school settings across the country.

Voyager Expanded Learning

Voyager Expanded Learning is an extended school-day (before- and after-school, summer, and intersession) program. It has a variety of academically enriching themes, designed to help elementary school children in grades K-6 become active learners in mathematics, reading, science, arts, and social studies.

When a school adopts the Voyager model, a district administrator is selected to conduct training sessions prior to the implementation of the program, and to serve as a facilitator whenever problems may arise. Reporting to the district director is a site director, typically a teacher in the participating school. This person receives weekly training in the philosophy, curriculum, and teaching methods, and then facilitates execution of the program with a maximum of eighteen children per class.

Using a curriculum designed by a staff of curriculum writers in collaboration with subject area experts, the Voyager Expanded Learning program has designed curriculum units in reading (Timewarp), math (Lightspeed), biology (Dragonfly), business (Success City), the arts (Kaleidoscope), history (Marco Polo), astronomy (Spaceship of the Imagination), physics

(Mainspring), archaeology and anthropology (Ice Age), and health (Pre+Med), among others. The goal of these units is to make learning interactive and meaningful by providing a "thematic, multidisciplinary approach to instruction" that will allow students to learn "theories, facts, and concepts, while at the same time requiring them to learn higher order thinking skills by solving real-life problems." The units are divided into daily activities, with active learning projects and outcome objectives for the teachers and the students. The development of the curriculum is research based, and the lessons for each theme are aligned with state and national standards.

Voyager currently has sites in over 250 schools across the country and is expanding rapidly. The program is currently undergoing an extensive evaluation process using nationally recognized experts. Results reported to date are based largely on teacher-parent surveys, supported by an independent study conducted by the Houston Independent School District involving over 950 students in the control group. The major evaluation has not reported results as yet. On average, results of the analysis showed that students in both groups made gains in math and reading. The results of the information obtained in this study are limited in their generalizability, as it is unknown how the students were selected to be in the two groups. The issue of selection bias was not addressed in the study. Results of the Houston Independent School District study showed that students enjoyed the program and teachers and administrators felt that it helped the students, and that they would use it again.

Hands On Science Outreach

Hands On Science Outreach (HOSO) is an extended school-day and after-school program developed to encourage all children, including minority, low-income, and at-risk students in grades pre-K to 6, to have fun learning science, and to learn by example and experience that anyone can engage in scientific inquiry. HOSO aims to improve problem-solving skills and confidence in participating in science activities.

When schools and community groups adopt Hands On Science Outreach, they are provided with adult leader training activities, program activities, and materials that children are able to take home. These include everyday materials such as paper, water, rubber bands, tapes, and other common things that children can use to perform scientific experiments both during the after-school hours and at home. The activities are divided into grade levels pre-K, K-1, 2-3, and 4-6, and are carried out in eight-week sessions each year.

Hands On Science Outreach was evaluated in 1993 by Sierra Research Associates (Goodman & Rylander, 1993) to investigate the effects of the program on children's attitudes

and understanding of Hands On Science during one session (eight weeks). The study consisted of 51 Hands On Science Outreach participants and 39 control group students. Control students attended the same schools and were in the same classes and grades as the participants. Students were not randomly selected to participate in the program, but they were matched with the control groups on the basis of grade. The assessment tool used in the study included interviews and questions about scientific inquiry, having students recall what they had been taught during the eight-week class, and student perceptions of who can do science and what it takes to do science.

Results of the analysis showed that the HOSO participants made statistically significant gains in their understandings compared to the control group. At the end of the evaluation, the HOSO students understood what science involved, and displayed significantly better content knowledge and significantly better understanding and perceptions of who can do science, as compared to the control group. Other results showed that within the Hands On Science Outreach group, children who were able to recall the information about what had happened during the previous eight weeks did better when asked "what is science?" than students who did not recall as much.

Parents of the students were surveyed to see if their children showed any interest in science at home. Anecdotally, parents of children who scored higher grades on the assessment reported that their children showed more interest in science. Results also showed an instructor effect; the more highly rated the teachers by the observers, the better the students recalled the information.

This study exhibits many of the characteristics endemic to many after-school evaluational studies. The students were self-selected, and can be assumed to have higher motivation. The assessment focused on the specific material taught in the program, to which the control students were not exposed. The evaluation results, therefore, can be seen only as suggestive, not conclusive or having evidence of effectiveness. Hands On Science Outreach currently exists in 26 states and the District of Columbia, and in 250 schools and sites around the country.

Fifth Dimension

Fifth Dimension is a cognitively based extended school-day program, developed at the Laboratory of Comparative Human Cognition (LCHC) of the University of California at San Diego (Cole, 1994a; Cole, 1994b; LCHC, 1994; Blanton, Mayer, & Shustack, 1995; Blanton, Moorman, Hayes, & Warner, 1996).

The program operates from a Vygotskyan perspective, based on the theory that exposing young children to increased opportunities to learn academic and social skills in collaboration with more capable others will allow them to develop their academic and social skills. The program stresses social interaction, communication, and problem solving in approaching the various tasks. The children are given choices about what tasks to learn, but are required to follow directions.

Each of the sites creates a mythical "creature" that also serves as a mentor to the students. Each mythical creature is created with input from the students, and its role is to serve as a "sounding board"/mentor/friend to the children. All of the creatures live inside the computer, and enjoy receiving e-mail messages from the students. Students in the program update the creature about their progress, celebrate their successes, share their frustrations, and seek advice from the creature as they work on their tasks. Additionally, the students have their peers and college students or other volunteers serve as mentors when solving their tasks.

Each program has a site coordinator, who serves as a bridge between the entity where the program exists (e.g., Boys and Girls Clubs, YMCA, church) and the sponsoring/training entity (e.g., the university). The program coordinator is responsible for the day-to-day running of the program, and for troubleshooting. The staff of the program mainly consists of undergraduates from local universities (preferably from the sponsoring institute). Prior to working in the program, the undergraduates enroll in a cognition class that explores theories of learning, language, culture, literacy, and cognition. They become "junior researchers," take field notes, observe interactions between children, and attempt to interpret their observations. Then, the undergraduates enter into the Fifth Dimension program, where they serve as assistants to and mentors for the students as they guide them through the maze.

Fifth Dimension emphasizes active learning through "playing." In this program, most of the activities use computers, with the exception of a few manual board games. In the after-school programs, the Fifth Dimension is a "maze" or a "map" of tasks that each student must navigate in order to finally become a "wizard's assistant." Each step on the map is usually characterized as a room, and each room has three tasks. Each of these tasks has three levels (beginning, middle, and expert). The types of tasks are developed to meet the needs of the students, and each maze is personalized. Before the students move from one activity to the next, they must complete the requirements of the activity at all three levels. After completing one activity, the students have the opportunity to either move to the next linear task, or to go to the "dare room," where they can choose any activity they like. As the students progress through the maze, they earn points, certificates, and merit badges. When the participants have

completed the tasks, they receive certificates and awards that recognize them as "wizards' assistants."

The program is intended to enhance work-study habits, social skills, social consciousness, working with peers, following instructions, and problem solving, and to improve academic achievement in mathematics, reading, and word problems.

Numerous site-based evaluations have investigated the effects of participation in the program on various cognitive and academic outcomes. However, because participation in this program is voluntary, it was difficult to find an appropriate control group. The program established experimental groups by selecting students who had attended at least a minimal number of sessions. Control groups generally consisted of students who did not attend the program at all. As a result of the voluntary nature of the program, at some of the sites, turnover made it difficult to establish an experimental group.

Effects of participation in Fifth Dimension were assessed on near transfer, medium transfer, and far transfer of general academic abilities (Blanton Mayer, & Shustack, 1995). Near transfer studies investigated the transfer of skills and knowledge that the children had learned in the Fifth Dimension programs that were specific to the program. Examples of these included improvement in playing computer and board games (study 1), factual knowledge of computers (study 2), hands-on proficiency using computers (study 3), and computer terminology (study 4). In four studies, students in the program showed improvement over time in playing computer and board games. Regarding improvement of factual knowledge of computers, students showed improvement in areas that they had been taught, and this was similar for the four near-transfer studies. These studies did not involve control groups.

Four studies explored the effects of Fifth Dimension on medium transfer of basic literacy skills to new tasks, investigating students' comprehension of computer game instructions. Two studies (studies 5 and 6) were conducted at Appalachian State University in Boone, North Carolina, and at California State University, San Marcos. Another investigated the effects of the Fifth Dimension program on improving students' ease of learning to play a new math-related computer game. This study (study 7) took place at the University of California at Santa Barbara. All of the medium-transfer studies included control groups.

The students in studies 5 and 6 were tested on an instrument that had been developed based on a specific computer game. All of the students were administered the pretest, played the game once, and then were administered the posttest. Studies 5 and 6 showed differences

in comprehension of instructions between the groups of students who had been involved in the program and those who had not.

Fifth Dimension is headquartered in California, with regional sites in Solano Beach, Escondido, La Jolla, and San Diego. The program exists at sites at ten California university campuses, and also has sites in Boone, North Carolina and Burlington, North Carolina. Fifth Dimension also has international sites in Sweden, Denmark, Russia, Israel, Mexico, and Australia.

The Imaginitis Learning System

The Imaginitis Learning System is a cooperative learning after-school language arts program created for students in grades 3-12. The goal of the program is to expose the participants to skills needed for effective and productive learning, in hopes that these will help the participants develop strong workplace competencies. The Imaginitis Learning System uses a language arts curriculum created at the University of Minnesota (Rogers, 1996), to teach such skills as cooperation, team building, and conflict resolution.

When schools take on the Imaginitis Learning System, teachers are provided with a one-day training program that emphasizes the principles of cooperative learning. Students in the program are divided into groups by age and grade, and provided with a task of working together in a team to creatively construct a book that eventually becomes a portfolio exhibition. The participants work individually on their own books, as well as collectively as a team, to create a class finished product. The team members work together and vote on what should be included or excluded in the process as well as in the final product. The teachers are trained to be "coaches" who keep scores based on the process of cooperative learning as they observe the various teams engage in collaboration. These scores are taken into account at the end of the session when the teachers evaluate the final product. The teachers evaluate the end-products for improvement of the students' writing, speaking, listening, and collaborating skills, as well as quality of the process that the students went through while planning the product.

The Imaginitis Learning System program has been evaluated in four sites across the country. The evaluations given to all of the sites consisted of two parts. Students were asked to respond to two surveys that measured responses toward cooperative learning and working with others, mastering academic environments, and overall perceptions of student-teacher relationships. The second part of the evaluation measured the extent to which students reported that they would solve problems and resolve conflicts productively.

Four sites were used as test sites: Lynnwood, California, Baltimore, Maryland, Philadelphia, Pennsylvania, and Washington, D.C. Overall, the results showed that Imaginitis students were significantly higher than control students in the areas of academic self-esteem, cooperation, and perceptions of student-teacher relationships. However, as with other after-school programs, it was difficult to maintain a control group. In some cases, the groups were not evenly matched; in others the groups were evenly matched, but the researchers were unable to gather data for all of the sessions of the program. Because the Imaginitis students were self-selected, even "matched" cannot be considered equivalent, as the Imaginitis students were presumably more motivated. However, when the groups were evenly matched and the results were gathered for all sessions, Imaginitis students reported more positive results than non-Imaginitis students.

Overall, students who had been involved in Imaginitis the previous year were more likely to carry over the effects of the program the following year. This was the case in elementary schools and alternative high schools.

Explore Incorporated

Another extended school-day program that attempts to improve students' academic achievement is Explore Incorporated (Explore Inc.). Explore Inc. has main themes incorporated in a curriculum written by academics in consultation with professionals in various academic fields. These themes include experiential learning, community service, physical education, homework support, and individual activities. As with other programs developed for similar purposes, Explore, Inc. creates modular curriculum materials that are aligned with national, state, and district standards. Some of the curricular modules include social studies (Community, Our Sense of Place), geography (One Earth, One Planet), entrepreneurship (Main Street Inc.), history (Time Traveler), life and biological sciences (Wildlife Discovery), computer science and literacy (Journey to the 21st Century), chemistry and physics (Invention Lab), visual and performing arts (Culture Club), leadership development (Trailblazers), and physical education and fitness (Young Olympians).

Using these themes and modules, Explore connects the goals of each lesson to state and national standards. The goal is to teach children to think critically, with expected outcomes being improved test scores.

When schools take on Explore Inc., the program hires certified teachers and community people (such as scout leaders and community volunteers) who receive an initial intensive training from Explore developers and trainers, followed by monthly monitoring and

mini-inservices for the area directors. Explore Inc. also has family and community service components, and provides children with homework assistance. Explore Inc. currently exists in four states (Massachusetts, Pennsylvania, New Jersey, and Maryland) in thirty schools. No evaluation data are available.

Mindsurf™

Mindsurf™ is an academic K-6 after-school enrichment program created out of a partnership between National Geographic and Sylvan Learning. The main goal of the program is to provide children with enriching academic achievement opportunities during the after-school hours, while creating safe and fun learning opportunities for the children at the same time. Children are engaged in the program during the hours of 3:00 to 6:00 p.m.

When schools take on Mindsurf™, a certified teacher is trained to direct the program. The program director then employs additional teachers (usually certified) to lead and oversee the various activities that the children engage in while working on different themes, which are also referred to as clubs. When children enter the Mindsurf™ program, in addition to working on homework and study skills, they join various "clubs" of interest (thematic units), where they work with other students and teachers using a 1-8 student-teacher ratio. The academic content of the Mindsurf™ program consists of various academic enrichment themes, such as Light and Color, Awesome Animals of North America, Storytelling, Australia, North America, Water, Blast Off, and Asia. These themes are explored using computers, camcorders, digital cameras, numerous software programs, and other innovative advanced technology pieces. In addition to participating in activities at learning centers, Mindsurf™ students receive individual kits that include activities for the children to engage in at home.

One of the newest components of Mindsurf™ is directed toward helping students improve their academic achievement. In addition to providing enrichment, Mindsurf™ attempts to provide some alignment to what happens during the day by encouraging and helping children complete their homework. This new development is referred to as the "Surf Shop" incentive program. In this program, students are trained to create assignment books that they use to log homework, and then to complete this homework in the Mindsurf™ centers. They are also reinforced (with tokens) for neat homework completion and for showing good study skills habits.

Mindsurf™ currently serves 400 students in four states (Maryland, Colorado, Washington, and California) across the country. No evaluation data are available.

Foundations Incorporated™

Foundations Incorporated™ is an extended school-day program for children in grades K-12. Founded in 1992, the program brings together children, families, schools, and communities by providing children with academic enrichment programs during the non-school hours on the school grounds.

When schools take on the program, they hire an on-site coordinator who is responsible for running the program as well as overseeing the staff. The school level staff of Foundations Incorporated™ programs consists of already certified teachers who have at least bachelor's degrees and sometimes masters degrees in education or other related fields such as psychology, sociology, or social work. The educational staff directly responsible for academic service delivery consists of certified academic tutors. All of the teachers involved in the study are required to write lesson plans which provide detailed information about courses to be taught, learning goals and objectives, and results that they hope to attain. The community service component of Foundations Incorporated™ also allows parents, community volunteers, and university students (sometimes interns) to volunteer their services in many capacities.

The curriculum strives to improve socio-emotional, academic, and physical skills by teaching the students critical thinking, problem solving, social skills, good health, and safety. The main academic curriculum consists of five themes: All About Me (socio-emotional unit), Our Global Festival (cultural and multicultural unit), On the Creative Express (creative units), Tech Quest, (study skills unit), and Action Earth (current events unit). This curriculum serves children in grades K-8.

Foundations Incorporated™ also has a young adolescents component which consists of after-school activities and programs for middle school, junior high, and high school students. In addition to providing after-school help, the program creates specialty clubs which help teenagers develop skills, hobbies, and interests in areas that are academic, recreational, and cultural. Some of these clubs include chess, dance, computers, business preparation, ceramics, karate, and photography.

Tutoring Programs to Improve Reading

This section, adapted from Wasik (1997), briefly addresses some structured tutoring programs that exist either as after-school programs or as in-school programs that could be implemented during the after-school hours. For more detailed information on the programs,

readers should refer to Wasik (1997), or contact the programs listed in Appendix 1. Some of the programs selected for this review have evidence of effectiveness or evaluation, but some do not.

Howard Street Tutoring Program

The Howard Street Tutoring Program (Morris, 1990a, b) is a remedial tutoring program created for students in grades two and three who are reading below grade level.

When schools become involved in the Howard Street Tutoring Program, a reading specialist or reading teacher becomes the on-site coordinator of the program. This person is trained on how to tutor the students, how to write the lessons and lesson plans to be used by the volunteers, and how to train the tutoring staff. As this is a volunteer program, the staff consists of non-paid adults and college students who must go through the training program before they become tutors.

Classroom teachers, using an informal reading inventory, initially assess potential student participants in the program. If the students are performing significantly below grade level, they are placed in the program. Once enrolled, students engage in daily one-hour one-to-one tutoring sessions, which take place every week.

The program has been evaluated on a small scale. In two Chicago evaluations, the Howard Street Tutoring Program students outperformed randomly assigned comparison groups in word recognition and word-passage reading (Morris, 1990 a, b). The program still exists around the country, but its creator has since moved on to another institution (Appalachian State University in North Carolina), where he has begun a similar program (Early Steps) for first grade students encountering similar difficulties in reading.

Book Buddies

Book Buddies is a tutoring program created for first grade students who have been identified by their classroom teachers as having reading problems. It was originally developed at the University of Virginia (Juel, 1984).

When schools take on the Book Buddies program, they hire an on-site program coordinator who is trained to implement the program. The tutorial training consists of eight hours of initial training provided by the creators of the program, and additional hours of training on an ongoing basis. The on-site coordinator is responsible for training and

observing the tutors, who are mostly graduate students working on a master's degree, or who have already earned a master's degree. The tutoring session is highly structured, and tutors are expected to follow the lessons prepared by the coordinator.

Potential Book Buddies students are identified by teachers as having reading problems. Once the students enroll, they attend one-to-one tutoring sessions twice per week, where they learn to read by rereading familiar storybooks, engaging in word study and writing and reading new stories. The students use storybooks, a tutoring manual prepared with the help of the coordinators and the researchers, and other materials.

This program has not been evaluated in comparison to a control group. Book Buddies students who had received many sessions were compared with a group that had received fewer sessions. As would be expected, the group receiving more tutoring sessions did better. As there are many reasons (such as poor attendance) that could explain why some students received fewer sessions, this is not a conclusive evaluation. Book Buddies is currently used during the school day, but it could be adapted for use during the non-school hours.

Help One Student to Succeed (HOSTS)

HOSTS (Gallegos, 1995; Hosts Corporation, 1994; Wilbur, 1995) is a model that helps schools create tutoring programs for at-risk students using a mentoring approach. HOSTS schools provide one-to-one, usually after-school tutorial services to Title I students in elementary through high school who are performing below the 30th percentile. This includes limited English proficient students and those who have been retained or are in special education classes. HOSTS trains volunteers from businesses and the community, as well as peers and cross-age mentors, to serve as tutors.

HOSTS helps school staff choose curriculum materials that are especially tailored to the individual needs of the children receiving services and aligned with what is being taught in the regular classroom. Schools involved in HOSTS have access to learning materials that have been specially designed to help the targeted population. The mentor or tutor follows a carefully designed lesson plan generated by the Title I teacher from a comprehensive database that aligns the curriculum of the schools to local objectives or state frameworks.

HOSTS evaluations have not included pre-post experimental-control group comparisons. They have measured student success by looking at NCE scores, NCE gains, and the number of students who pass at grade level.

In a multi-state study of HOSTS done for Title I national validation (HOSTS, 1994), students in grades 1, 2, and 3 made substantial NCE spring-to-spring gains (15, 25, and 25, respectively), and students in other grades also made significant NCE gains. In a spring-to-spring California evaluation involving second, third, and fifth graders who were 95% Latino, the HOSTS students had NCE gains of 11.4, 9.5, and 9.9 respectively. These NCE gains exceeded those of the school and the state.

Since its inception in Vancouver, Washington, in 1972, HOSTS has involved over 150,000 students and 100,000 mentors in more than 4,000 programs nationwide, many of which are after-school programs.

Reading Recovery with AmeriCorps

Reading Recovery with AmeriCorps is a variation of the original Reading Recovery tutoring program substantially adapted for use by volunteers. Whereas the original program (Clay, 1985; Huck & Pinnell, 1986; Pinnell, 1989; Pinnell, Short, Lyons, & Young, 1986; Pinnell, DeFord, & Lyons, 1988; DeFord, Pinnell, Lyons, & Young, 1988; Wasik & Slavin, 1993; Pinnell, Lyons, DeFord, Bryk, & Seltzer, 1994) was designed for use only by certified reading tutors who are already credentialed teachers or reading specialists, the AmeriCorps version of the program trains community volunteers who are paid by AmeriCorps to deliver tutoring services to the students. As with the original Reading Recovery, this program is designed for students in grade 1 who are reading below grade level.

Schools participating in the AmeriCorps/Reading Recovery program must already be Reading Recovery schools. The main overseer of the program is the Reading Recovery teacher, who is, of course, very familiar with the original Reading Recovery training program. This person provides AmeriCorps volunteers with 150 hours of initial training, plus additional training and follow-up sessions. The Reading Recovery teacher/leader also provides the materials used in the program. Students are selected into the program upon identification by their classroom teachers. They are students with less severe reading problems who would not therefore meet the standard Reading Recovery criteria for tutoring services. Typically, the most at-risk children, those reading below the 20th percentile, would receive standard Reading Recovery tutoring from a certified teacher, while a less at-risk student would receive AmeriCorps volunteers as tutors. Once enrolled in the program, students receive one-to-one tutoring sessions every day. Some of the skills that the students learn include word knowledge, letter identification, concepts of print, text comprehension, and oral storybook reading.

Although the original Reading Recovery model has been evaluated many times using control groups, the AmeriCorps adaptation has not been evaluated in the same way. The research on AmeriCorps/Reading Recovery shows that students involved in the program made NCE gains, but it is not clear what gains they might have made without the program. While AmeriCorps/Reading Recovery was mainly designed for use during school hours, it could be adapted for use during non-school hours.

Intergenerational Reading Program (IRP)

This program was designed to improve the reading skills of first grade students experiencing difficulties with reading, using an intergenerational model. This program trains and sometimes pays senior citizens and foster grandparents as tutors.

When schools adopt the Intergenerational Reading Program, they hire a certified teacher who trains and supervises the volunteer tutors. The tutors are given three initial three-hour training sessions in which they learn about metacognitive aspects of reading, such as grapho-phonemic relationships and phonics. Additionally, tutors meet at least twice every month for continuing training.

Students who enter the program are first graders who are identified by their teachers as being at risk for reading problems. They receive one-to-one tutoring at least three times per week. The sessions consist of individualized tutoring sessions, in which they learn basic elements of reading, such as phonics, spelling, and text in context, using storybooks and word strategy materials developed by the creators of the program.

The Intergenerational Reading Program is being evaluated, but there are no data yet available.

Reading Together/VISTA

Reading Together/VISTA is an early intervention reading program designed for low-income kindergartners and pre-first grade children (Neuman, 1997, 1996, 1995; Neuman & Gallagher, 1994; Shanahan & Neuman, 1997; Neuman & Roskos,1997; Roskos & Neuman, 1993; Neuman & Roskos, 1994). The program is designed to expose young children to concepts of literacy and reading, using prop boxes to improve children's languages and skills. The prop boxes consist of a variety of articles put together to stimulate the use of new vocabulary and language among the children. Some of the contents include crayons, paper, pencils, interesting objects, and books.

Each Reading Together/VISTA school has a program coordinator. This person receives training on how to create, use, and train additional staff to use the prop boxes. The staff consists mostly of paid, trained VISTA volunteers, who then train parents of low-income children to work with their own children two hours per week. The VISTA staff members do not interact directly with the children; instead, they prepare and distribute the prop boxes and show the parents how to use them with their children. Additionally, they observe parents' interactions with their children and continuously provide feedback to the parents.

Students enrolled in the Reading Together/VISTA program do not have to be diagnosed as having reading problems prior to participation in the program. The goal of the program is to enrich the language arts experiences of the children before they enter first grade, so that they will be less likely to be diagnosed as "behind" in reading or "at risk" for school failure.

A small evaluation of this program (Neuman, 1995) showed that students involved in the program made gains in reading when they entered first grade. This evaluation, however, did not include a control group.

Early Identification Program

The Early Identification Program (EIP, 1989) is an in-school program designed to improve students' reading performance in kindergarten.

When schools enroll in the EIP program, they hire two part-time program coordinators who become responsible for the training of volunteer tutors. The initial training consists of teaching the tutors to use the tutoring manuals, which contain sequenced materials that students and tutors use. The staff that implements the tutoring program consists mainly of non-paid community volunteers. Prospective Early Intervention Program participants are identified by their kindergarten teachers.

Students in EIP are provided with one-to-one tutoring sessions. These sessions focus on perceptual motor and fine-motor skills, categorization concepts, and reading readiness skills.

The Early Identification Program was involved in an evaluation that compared EIP students with non-EIP students (EIP, 1989). Although the EIP students improved their scores, the non-tutored group actually performed better than the tutored group on the tasks required of them. However, students were not randomly assigned to the groups, and those

in the control group (less at-risk) scored higher than the experimental group at the outset of the comparison.

*READ*WRITE*NOW*

READ*WRITE*NOW is a comprehensive effort to encourage children to enjoy reading in hopes of improving reading among at-risk youth before age nine (Riley 1995, 1996). The goal of READ*WRITE*NOW is to increase the amount of reading done by children (especially low-income), and to encourage parents, volunteers, and teachers to participate in this process. READ*WRITE*NOW is not a specific method of tutoring, but is more of a model that could be used to organize schools, cities, and local agencies (e.g., libraries) to set up tutoring programs for young children.

When schools or community centers participate in READ*WRITE*NOW, the main person responsible for the administration of the program is a hired program coordinator. READ*WRITE*NOW does not require that the program coordinator be a certified teacher. This person then trains prospective tutors who are non-paid parents and community volunteers. The tutors involved in the program receive training that is not necessarily uniform from site to site.

Unlike many of the other programs reviewed, READ*WRITE*NOW does not pre-diagnose students before they enter the program. Participation is open to everyone. It is more of a "reading partner" or "reading buddies" program than a tutoring program. The adult listens to children reading, providing minimum guidance when needed. Adults are encouraged to play positive roles in the lives of children by reading with them. The expected result of this program is that students will have a joy for reading and will progressively become better readers with increased opportunities to read.

Students engage in these activities at least once a week for thirty minutes, and are encouraged to read the stories that they have already gone over from the materials provided. Students read storybooks mostly from their school and the public library.

The program does not have a prescribed method for teaching or training the tutors. READ*WRITE*NOW is basically an organizational effort providing information about some aspects of how to set up a "reading buddies" program.

READ*WRITE*NOW does not have evidence of effectiveness, but it is currently being evaluated formatively. READ*WRITE*NOW packages are available for schools, communities, and neighborhoods interested in implementing the program across the country.

For a more extensive review of research on volunteer tutoring programs, see Wasik (1997).

Community Based After-School Programs

This section involves programs that were created for use primarily in after-school settings that have a community focus. Some of the programs in this section are offered in schools and others in community buildings.

New York City Beacons Program

In 1991, the New York City Department of Youth and Community Development created the New York City Beacons program in ten schools (Lakes, 1996; Canada, 1996; McGillis, 1996). The main goal of the program is to reduce crime and violence among youth and their families by providing after-school programs for the whole family, to ultimately improve school and community linkages. By improving parental participation in the lives of the children, the program was intended to lead to better and more supportive neighborhoods for children, youth, and families.

The Beacons are school-based community programs, which means that they are located in schools but also serve school-aged children living within the area who do not attend the schools in which the programs are operated. The programs provide a combination of educational, cultural, and recreational programs for all of the community participants. Students can participate in cultural and recreational programs, such as Boy Scouts, Girl Scouts, seasonal sports, and Boys and Girls Clubs, and they can enroll in other cultural and recreational programs that specifically fit the needs and desires of the communities the families live in. In addition to providing after-school programs in the individual school sites, Beacons programs provide family services such as Adult Basic Education, ESL, Family Counseling, Parent Education, and a range of health and social services on site. They also serve as venues for community meetings.

The Beacons after-school programs for youth also stress academic support, remediation, and enrichment. Examples of academic assistance include tutoring, homework help, SAT/ACT preparation, and college preparatory classes. All the Beacons schools are also regularly involved in technical assistance programs with the Fund for the City of New York. For example, The Beacons have an educational curriculum/training component titled "Making Literacy Links," which focuses on literacy and uses journal writing, storytelling,

and reading activities. Enrichment activities include classes in video production, newspaper production, and script writing.

When schools become Beacons, they are required to maintain a Community Advisory Council, which must include teachers, parents, principals, youth neighborhood organizations, and other community residents. The Council continuously oversees the various entities involved in the group and ensures that they all contribute to the progress and cohesiveness of the program. The lead agencies, usually existing community agencies, recruit and provide services to the members. The lead agencies generally stay open longer hours, already exist in the community, and are already ethnically, racially, and culturally sensitive to the needs of the communities they serve.

The Beacons have four main goals: youth development, parental involvement and family support, school-home-community linkages, and building safe and supportive neighborhoods for child and youth development.

The youth development aspect of the program aims to provide students with a sense of community. Youth are engaged in challenging and engaging activities that allow them to participate meaningfully in decision making, with a goal of eliminating such challenges to teenagers as violence, substance abuse, juvenile delinquency, and teenage pregnancy.

The improved school-home-community linkages strive to use the school as an educational forum that changes and forms the community into a goal-oriented network of youth and adults, school staffs, schools as a whole, and minority communities. Some of the goals of these linkages include increasing school attendance and improving community problem-solving capabilities. The schools and the Department of Youth and Community Development also collaborate with the Administration for Children's Services to provide additional social services for the children involved in the Beacons program.

Parental involvement in the Beacons program includes getting parents to help in the after-school program and offering opportunities for the adults to improve themselves through adult educational, cultural, and recreational classes during the non-school hours. As they strive to improve relations between schools and parents, the Beacons help parents by accompanying them to meetings with school staff and by hosting parent-teacher Beacon meetings.

Beacons programs exist in 40 New York City schools and are currently undergoing an evaluation.

LA's BEST

LA's BEST (Brooks & Herman, 1991) is an after-school education and enrichment program created in 1988 for students in Los Angeles. The goals of the program are to create a safe environment for students living in the city, to provide students with enhanced educational, enrichment, and recreational activities, and to teach socio-emotional skills. LA's BEST currently serves about 5,000 students at 24 elementary schools in the Los Angeles Unified School District.

In order to become an LA's BEST school, the site must have students who are academically challenged (low test scores) and financially disadvantaged, and must be located in a high crime neighborhood in the Los Angeles Unified School District. The main overseer of each local school program is the site coordinator (some sites may have more than one). By design, each site coordinator is given a great deal of local autonomy. This person also oversees additional staff — program supervisors, playground workers, specialized small group leaders, high school student workers, and volunteers. All employees of LA's BEST are qualified by the Los Angeles Unified School District. Although the basic minimum requirements for the positions include only fingerprints, clearance, and TB tests, the site coordinators and program supervisors tend to be teachers from the regular school day who are credentialed. The program hopes to reach students who are challenged academically, socially, and socio-emotionally and deter them from violence and crime by providing them with homework assistance, academic enrichment, cultural and recreational experiences, development of talents, skills and hobbies, socio-emotional support, and enrichment opportunities such as theater and visual arts and monthly field trips. LA's BEST involves the local school community and community persons in the development, running, and organization of the program by hiring high school students and college undergraduates as well as community and neighborhood residents to serve as aides, and by providing parents with opportunities to volunteer.

When students enroll in LA's BEST, they initially participate in the basic academic program, which provides them with opportunities to improve their skills in areas in which they may need help. All of the LA's BEST students are required to participate in the homework lab, where students are tutored by aides and other members of the staff in reading, language arts, mathematics, and other subjects. The tutors who are responsible for academic tutoring in the homework labs in LA's BEST have regular training in the varying ways that children learn, and are supported by supervisors, activity consultants, a full-time program director, and the President and CEO. Other required academic activities for all LA's BEST participants include computer skills and literacy development, and these activities take place

every day. In addition to the required academic activities, other academic enrichment clubs and opportunities include, but are not limited to, science and mathematics clubs. After the academic period, students choose from a variety of recreational, cultural, and enrichment activities. LA's BEST is offered at no cost to parents on a first-come, first-serve basis. Students must maintain minimal attendance (which varies from site to site), or they may lose their place in the program to other students on waiting lists.

LA's BEST also encourages parents to attend family-oriented citywide events. The events are combinations of fun activities and workshops for the families (especially for parents or guardians) on parenting issues. The goal of these events is to familiarize parents with issues pertaining to the schooling of their children, so they will eventually become more involved.

The first evaluation of LA's BEST was a formative evaluation of the program (Brooks & Herman, 1991). Surveys were given to parents, staff, and children. Parents and students felt that they had benefitted from the program. The evaluators advised that future evaluations should include more rigorous qualitative and quantitative evaluations.

Since the original evaluation, a longitudinal formative and summative evaluation of the program was performed by the Center for the Study of Evaluation at UCLA (Brooks, Mojica, & Land, 1995). This evaluation was a longitudinal study of the effects of LA's BEST on children's academic skills, parents, and students' motivation to succeed in school.

This study was a matched-comparison design. The study involved 80 fifth- and sixth-grade LA's BEST students and 66 fifth- and sixth-grade students in the comparison group. Students were selected into the treatment or comparison groups on the basis of availability, number of years enrolled in the program, and parental permission to participate in the study. The study compared the grades of students who participated in LA's BEST for two years with those of students who participated for at most three months and then left the program. The students were not equal in the beginning, but using statistical procedures to control for outliers, the two groups were slightly more comparable. At the onset of the evaluation, students in the control group outscored students in the experimental group in the areas of mathematics, science, social studies, and composition, and were higher in reading. At the end of the study, grades and effort scores of students in both groups increased. Scores of the LA's BEST students increased more than those of the students in the control group, and they even outscored them in all areas in the end. However, only the differences in reading scores between the two groups were statistically significant in 1991 and 1992 ($P<.05$).

Additional evaluations of LA's BEST included interviews with the students about their environments and issues related to safety and availability of helpful resources during the non-school hours. Students who attended LA's BEST answered that they felt safer during the after-school hours, had more access to helpful resources, liked school more, had higher aspirations to complete high school, and were less likely to participate in gangs. Finally, parent interviews revealed that parents felt that students were in a safe environment and that they were being encouraged to apply themselves academically.

One should interpret the findings of this evaluation with caution. Although the difference between the two groups was significant for reading scores, selection bias is a factor in this evaluation, and is an issue that the evaluators also address (Brooks, Mojica, & Land, 1995). Participation in LA's BEST requires parental permission, regular attendance in the program, willingness to participate in the program, and a host of other factors that already distinguish participants in the program from non-participants. The evaluators also mention that there were specific demographic differences between the two groups of students, such as availability of care, higher grades for the comparison group, more parents of the comparison group speaking English as a second language, and more parents of the comparison group being unemployed. Looking at these factors, even when there were some significant results and favorable patterns for students involved in the program, it would indeed be difficult to conclude that the differences in grades, academic effort, and feelings of safety were caused only by the LA's BEST program.

Child First Authority

The Child First Authority (CFA) is a Baltimore community-based after-school program that seeks to improve the quality of life in low socioeconomic status communities. The CFA received funding from the Mayor's office, the Governor, and the City Council through a local Industrial Areas Foundation branch named Baltimoreans United in Leadership Development (BUILD) in the summer of 1996. During the first year of funding, the CFA established community-based learning centers in ten schools. The main goal of this program is to improve the quality of life in Baltimore City by directly serving public school students and their families academically, culturally, and behaviorally in the school-based extended-day centers. The program uses the schools as hubs of activity in which parents, staff, administrators, church members, students, and other community members get together. Although the overall goal of the program is the improvement of the quality of life, the CFA programs in the schools in Baltimore are not all the same. BUILD oversees the program as a whole, and specifies the parent/community components of the program, but the programs

have evolved differently from site to site. For example, different extended school-day centers have chosen to use different cultural enrichment programs, depending on the needs and the goals of the program planning teams.

Similar to LA's BEST and the Beacons program, Child First seeks to tie parents and communities together. The CFA Advisory Board, made up of representatives from BUILD, the Mayor's office, and the City Council, meets monthly. Additionally, each site has a planning team made up of community, school, and church entities. This team determines the content and structure of each program at each site, and votes on all policy issues that the programs take on.

In order to become a Child First school, a school must be identified by a BUILD member, who then engages in discussions with the principal to determine if the school is ready to take on the responsibilities involved. A school planning team then signs a compact with the organizing body, which grants the group access to the school, access to the parents, and space for the after-school program.

Each school employs a program coordinator, an academic coordinator, and a parent/volunteer coordinator. The academic parts of the program function as true extended school-day programs, which means that the teachers who work during the regular school day are the academic teachers in the after-school hours, and are trained in teaching reading, writing, language arts, and other subjects. Some of the programs incorporate externally developed extended school-day programs which are taught by the regular school-day teachers.

The main evidence of effectiveness for CFA consists of anecdotal data passed on to CFA staff by teachers, parents, children, and other participants in the program. Evaluation was built into the program, however, and a CFA formative report is currently under way. This evaluation will document the steps taken to create the program, and will create a dissemination package to enable the program to be replicated across the city and elsewhere. The formative evaluation will be followed shortly by a summative evaluation of changes in children's behaviors, grades, school attendance, and parental participation. It will also provide evidence about what works best in the various implementations of the programs.

Big Brothers & Big Sisters of America, Inc.

Big Brothers and Big Sisters of America, Inc. was created specifically to provide young children from single-parent families with adult mentors. The organization is mainly

funded by the U.S. Department of Justice. The goal of this program is to provide young children (especially inner-city children and children from single-parent homes) with role models in their everyday lives who will provide them with positive experiences, teach them to make healthy decisions, and help them strive for the best in life.

Children participate in Big Brothers and Big Sisters by connecting with local agencies, but there is a waiting list. Adults who sign up to be Big Brothers and Big Sisters are screened and, if selected, asked to spend at least 4-6 hours every month with his or her little sister or brother.

A randomized evaluation study of the program was performed to investigate the effects on youth who had been provided with services to youth who had not been provided with services (Public/Private Ventures, 1995). In this study, 959 children (ages 10-16) who had applied to be a part of the Big Brothers/Big Sisters program were randomly assigned to a treatment group (487 participants) or a waiting list, which served as a control group (472 participants) for 18 months. Results showed that students who were a part of the study were significantly less likely to start using drugs and alcohol or engage in aggressive activities, and more likely to improve school performance and attendance and improve their peer relationships. Evaluations of the study have shown that both adults and children have enjoyed being in the program. Recently, the Department of Justice granted agencies across the country additional funding, based on evidence that programs have reduced violence, pregnancy, and unwanted behaviors among inner-city youth.

Boy Scouts

The Boy Scouts of America (BSA) is one of the oldest youth organizations in the world. The program seeks to enrich the lives of young males and teach them how to become model citizens by providing them with educational, mentoring, social, cultural, and recreational opportunities and activities on a regular basis. Any organization can begin a Boy Scout troop. Boy Scout troops currently exist in churches, schools, after-school programs, recreational centers, community centers, and other entities. The youngest age of participation for children is seven, and scouting can continue into adulthood.

Girl Scouts of the USA

A sister organization to the BSA is the Girl Scouts of the United States of America (GSUSA), created by Juliet Lowe in 1922. The goal of this organization is to provide girls

with enrichment, educational, recreational, and cultural opportunities that will help them develop into positive and productive citizens. The GSUSA is the oldest, and most comprehensive organization that provides such opportunities for girls. Any organization can begin a Girl Scout troop in a church, school, after-school or in-school program, recreational center, community center, or other entity. Girl Scouts offers different levels of membership geared toward different age groups.

The youngest GSUSA group is "Daisy Scouts," for children in grades K-1, and participation can continue into adulthood.

Campfire Girls and Boys

The Campfire Girls and Boys organization teaches youth about the dangers and the safeties of camping outdoors. This organization began in 1912 as an educational attempt to teach youth about the dangers of forest fires and how to prevent them. Programs have the option of adding an environmental component to their after-school or extended school-day programs.

With an eighty-seven year history of promoting and encouraging positive youth development, Campfire Girls and Boys provides children and youth across the United States with an understanding of the role of community service in their lives. Programs provide the opportunities to translate that understanding into action through partnerships with families, schools, peers, and communities. Specifically, Campfire's child care, club (small groups of youth working with adult mentors), and camping programs provide quality out-of-school experiences for children and youth. Some of these experiences include citizenship, appreciation for volunteerism, decision making, fostering inclusiveness, and empowerment.

The guiding purpose of Campfire is, through a program of informal education, to provide young people with a range of opportunities for skill, self, and social development to maximize their potential and function effectively as caring, self-directed individuals responsible to themselves and others.

4-H

The 4-H program was begun in 1912, in response to a need to introduce youth to nature study as a basis for better agricultural education. The 4-H's stand for Head (training youth to think, plan, and reason), Heart (training youth to be true, kind, and sympathetic),

Hands (training youth to be useful, helpful, and skillful), and Health (training youth to develop health and vitality). The program is generally funded by the United States Department of Agriculture (USDA) through local land-grant universities and sometimes through city agencies. Most of the 4-H headquarters are stationed at universities in departments that emphasize agriculture and education.

Schools wishing to incorporate 4-H components into their programs may contact their local 4-H offices. Complete curricula are offered by 4-H, along with guides and manuals for implementation, and the 4-H council has evaluated these curricula. The 4-H clubs also have community service and work-training components that they incorporate into their programs. They have ready-to-go kits available for teaching various topics that can be obtained by telephone, letter, or e-mail.

Boys & Girls Clubs of America

Boys & Girls Clubs of America comprises a national network of more than 2,000 neighborhood-based facilities annually serving some 2.8 million young people, primarily from disadvantaged circumstances. Known as "The Positive Place for Kids," the clubs provide guidance-oriented character development programs on a daily basis for children 6-18 years old, conducted by a full-time trained professional staff. Boys & Girls Clubs programs emphasize educational achievement, career exploration, drug and alcohol prevention and avoidance, health and fitness, gang and violence prevention, cultural enrichment, leadership development, and community service.

Boys & Girls Club programs were also developed to provide youth with safe havens during the non-school hours. In addition, the programs provide fairly structured environments, in which young children receive homework help, some academic classes, opportunities to use computers, and other recreational opportunities. Boys & Girls Clubs also allow children to develop cultural and recreational skills, through teaching drama, dance, and club sports such as basketball, volleyball, football, and soccer. Boys & Girls Clubs exist all over the country in both rural and urban neighborhoods. Boys & Girls Clubs and schools may choose to collaborate during the non-school hours in order to widen the scope of their services.

Police Athletic League (PAL)

The Police Athletic League is an after-school service-providing program begun in 1992, as an effort to reduce violence and delinquency among inner-city youth. The program strives to improve relations between inner-city youth and the police, and to provide youth with safe havens in the community by providing community service officers to act as tutors, mentors, teachers, and role models in PAL centers. The first PAL center was begun in Chicago; there are now centers in many cities across the United States. Similar to other after-school programs, PAL programs offer homework help, arts and crafts, and recreational activities. PAL stresses educational excellence among its participants by keeping close track of attendance records. The Police Athletic League program is most well known for its athletic component. Students enrolled in the program have opportunities to try out for and compete in sports like volleyball, soccer, basketball, and football, and the league sponsors these programs.

Correlational Studies of Environmental Issues in Extended School-Day and After-School Programs

Vandell and Corasaniti (1988), Posner and Vandell (1994), Rosenthal and Vandell (1996), and Pierce, Hamm, and Vandell (1997) have conducted evaluations on environmental issues of childcare, key factors that contribute to the operation of effective after-school programs, and the effects of different types of activities offered during after-school programs Some of these studies show links between academic success and environmental issues/quality standards of care. This section presents some of the findings of these studies.

Does program climate and flexibility affect outcomes for first-graders in after-school programs?

Pierce, Hamm, and Vandell (1997) studied experiences and subsequent academic and social-emotional adjustments of first-grade students enrolled in after-school programs. They investigated the effects of program flexibility and staff warmness on first grade students' academic, social, and emotional adjustments in school during the regular school day.

The study involved students in 38 School Age Child Care (SACC) centers in and around Madison, Wisconsin. These centers offer various types of after-school programs. Parents of the students were contacted by letter through their centers, and then mailed a survey form. Of the 150 students in the study, 51% were male and 49% were female; 87% were white, and 13% were minority. Among the parents, 57% of the mothers and 67% of the fathers had obtained at least a bachelor's degree. Twenty-five percent of the children came from single-parent families.

This study assessed the climates of the programs, through classroom observation of the quality of the children's (positive or negative) interactions with one another, and staff positive and negative regard, which included the frequency and quality of the staff's interactions with the students. Program flexibility ratings were calculated, based on the extent to which participants in the program were allowed to select their activities or playmates while involved in the after-school program. Finally, the curricular activities were rated in terms of their number and age appropriateness.

Initial descriptive analyses found that such variables as socioeconomic status, family structure, and firm responsive parenting practices had a significant effect upon the types of programs that students were enrolled in. Children who came from higher- and two-parent

income families were more likely to be involved in programs offering greater flexibility and more activities, and were also more likely to have better academic grades in mathematics, reading, and oral and written language. Children from single-parent and lower socioeconomic status families, on the other hand, were more likely to be involved in programs in which staff displayed more negative regard for children, and they were more likely to have poorer oral language grades. Firm/responsive parenting practices was associated with fewer negative peer interactions in the programs, and better school adjustment, such as fewer externalizing behaviors, better work habits, better written language grades, and better social skills with peers. SES and parenting practices were statistically controlled when examining these associations.

Boys involved in after-school programs had significantly fewer internalizing ($p<.05$) and externalizing problems ($p<.01$) during the day if they experienced more, rather than less, positive staff regard. Negative staff regard was associated with negative academic impacts, resulting in significantly lower reading ($p<.01$) and mathematics ($p<.05$) grades. Negative peer interactions also had an effect on adjustment. The more negative peer interactions the boys experienced during the after-school program, the more internalizing ($p<.01$) and externalizing ($p<.01$) problems they exhibited, and the poorer their social skills ($p<.05$). For girls, negative peer interactions were associated with externalizing behavior problems.

Social skills of the children improved significantly ($p<.05$) when they were involved in more flexible programs, but these students also had poorer written language grades ($p<.05$) than students involved in less flexible programs. Looking at activities offered, the more available and greater the number of activities offered to the children, the better they were at solving both internal and external problems.

Finally, availability of activities offered showed the greatest impact of all of the experiences for boys. Offering a wide array of available activities increased boys' internalizing problems ($p<.01$) and externalizing behaviors ($p<.05$), and decreased reading grades ($p<.01$), and math grades, ($p<.01$). For the girls, offering a wide array of activities did not have any relationship with the measured outcomes.

Because of its correlational nature, the Pierce, Hamm, and Vandell (1997) study cannot conclusively demonstrate that certain features of after-school programs *cause* the various outcomes reported. However, this study does indicate that students are more likely to succeed in programs that offer more structure through fewer activities. It suggests that even for younger children, a well-structured program can have positive effects upon the child during the non-school hours as well as during the regular school day.

Is there a relationship between atmosphere, program flexibility, and academic success in the program?

Rosenthal and Vandell (1996) explored relationships between alterable features of School Aged Child Care (SACC) programs and older children's observed and reported experiences and parents' perspectives. These features included program structural variables, staff characteristics, and curriculum.

This survey involved 30 programs and 265 students in Wisconsin. The participants included a total of 180 children (94 in the third grade, 55 in the fourth grade, and 21 in the fifth grade). There were 103 males and 77 females, and the ethnic breakdown was 90% Caucasian and 10% minority.

Each site was observed twice. Children's interview reports on their experiences in the program were received ahead of time, and parent interviews were provided two weeks after the program observations. Results showed that classes with more staff per child had less negative staff-child interaction and less negative child behavior. The lower the percentage of older children, the less negative behavior was found. More positive/neutral interactions with the staff were observed when there was a greater flexibility of activities.

Children who were interviewed were asked to rate the programs based on overall climate, emotional support, and autonomy/privacy. A negative correlation was found between overall climate and total enrollment number; the more students enrolled, the lower the scores for climate. In addition, children in the larger programs rated them lower on perceived emotional support and autonomy, although these programs did offer a greater number of different activities. Finally, low staff-to-child ratios were also associated with negative parental ratings of the programs.

Effects of After-School Programs on Third Grade Achievement

Vandell and Corasaniti (1988) sought to investigate how after-school care affected third grade students' social, academic, and emotional development. First, they compared the responses of third-grade latchkey children to those of children who were in adult care during the non-school hours. Second, they looked at the diversity of after-school arrangements (day-care centers, community sponsored sites, or at home with mother) and their effects on the social, emotional, and academic well-being of the students. Third, the researchers studied how different types of after-school care were related to family structure (single, married, or divorced).

The subjects in the study were 150 Caucasian third graders in a suburb of Dallas. Most of the parents involved in the study were high-school graduates and some had college experience. A preliminary descriptive analysis of the study showed that children whose fathers' educational levels were highest tended to stay with sitters after school, instead of attending after-care centers or returning home alone (or to siblings). Outcomes evaluated in this study included academic grades, conduct grades, standardized test scores (CTBS, ITBS, CAT, and TABS), classroom sociometric ratings (friendships with peers), teacher ratings (work skills), peer relations, emotional well-being, adult/child relations, parental ratings, and self-ratings.

Results of the study showed that the type of after-school care had an effect on the sociometric ratings the students received from their peers. Children who attended the centers and those who went to a sitter after school were more likely to receive negative ratings from their peers than were students who returned home to their mothers or were latchkey children ($p<.01$).

Academic achievement was also affected by the type of after-school care. Specifically, children enrolled in centers had significantly lower ITBS scores than those who returned home to their parents. They also had significantly lower mathematics scores on the TABS and the CAT than did students in all other childcare arrangements. Meanwhile, there were no significant standardized test score differences between children in latchkey care and those who returned home to their mothers.

The socio-emotional well-being of the students was also related to type of placement. Students who went to a sitter tended to have better senses of self-perception than did latchkey or center children. Finally, parents of children who attended centers rated their children as having lower peer relational skills than did parents whose children were in other forms of child care.

Descriptive data indicated that many of the students were stigmatized because they went to the center for after-school activities. In addition to this, students who went to the centers were found to be already exhibiting behavioral problems. Further, the activities in the centers were also rated as not being age appropriate. They were geared more toward children in lower grades, and thus the third-grade students in this study were bored.

Effects of Structured Academic After-School Programs on Low-Income Children

Posner and Vandell (1994) investigated the benefits of after-school programs for low-income children. Subjects included low-income minority (mostly African-American) third-grade students in one of four types of after-school care situations: maternal care, informal adult supervision, self-care, and formal after-school programs. Almost 60% of the students qualified for free and reduced lunches, 50% were from single-parent families, and none of the parents had completed college.

Three after-school programs were studied. One was housed at school but was primarily staffed by childcare providers, not classroom teachers. It provided a balance of academic, recreational, remedial, and cultural activities. The second had more of an academic focus and was staffed by teachers from the children's school-day programs. It focused on academic redemption and enrichment activities, but also provided the children with cultural and recreational activities. The third program involved mainly recreational and cultural activities, with some homework assistance. All of the schools had the same curriculum for the children during the day.

Outcomes measured included ratings of the children's behavior by the parents and the children, academic ratings of the children's success, report card grades, and standardized test scores.

Preliminary descriptive analyses showed that African-American children (who made up the majority of the population) were more likely to use adult supervision than self-care. Lower income families were more likely than middle class families to enroll their children in "center-type" formal after-school programs, and children were more likely to return home to their mothers if their mothers were not employed.

Controlling for mother's education, child's race, and income, students who attended after-school formal programs performed better academically in mathematics, reading, and other subjects, ($p<.01$), and had better conduct ratings than did children who were either in mother care or in other informal arrangements.

Children in all three formal school programs were rated as having better work habits than children who were informally supervised, and were rated as being more emotionally adjusted than were students who were informally supervised and who returned home to their mothers. They were also rated as having better peer relations than children who were informally supervised. Children in formal after-school programs or who went home to their

mothers were less likely to be rated as antisocial than were unsupervised or informally supervised children, and they were also less likely to be rated as headstrong.

Children involved in the formally structured programs spent significantly more time on academics and enrichment lessons, and significantly less time watching television or engaging in unorganized activities outdoors. They also spent significantly more time with adults and doing activities with adults. They spent significantly less time with siblings and more time with peers.

Components of an Effective After-School Program

Bronfenbrenner (1986), in his ecological approach to the study of the development of the "whole" child, has shown that community, family, school, friends, and relatives have a great deal of influence upon what happens to the child in school as well as out of school. If these external forces are supportive of what happens during the day (and vice versa), then the academic, emotional, and social development of the child are more likely to complement one another and lead to the healthy development of the "whole child." If any of the external forces are not in harmony, it is more difficult to attain this goal.

Time after school is prime time for the implementation of programs to complement, enhance, and enrich what happens during the regular school day. Effective extended school-day and after-school programs are capable of addressing three developmental needs of the "whole" child: academic, recreational, and cultural. The next section provides brief descriptions of these program components.

Academic component: The school or community center must decide whether the goal of its academic component will be to improve the school-day performance of the children involved in the program, either through academics tied to the school curriculum or through academic enrichment activities, or both. If the academic program is directly connected to what happens during the school day, then curriculum planners must be more selective with what they choose to teach and carefully align after-school curriculum with school curricula and objectives. Content taught during the after school period must be taught by qualified instructors who are familiar with and can be held accountable for student outcomes.

One of the most efficient ways to ensure curricular alignment is to staff extended school-day and after-school academic programs with effective regular-school-day teachers

who are already familiar with the curriculum plans and objectives. This is, of course, much easier to do in an extended school-day program that operates in the same school building. If the program is operated as a traditional after-school program at a community center, however, it is still possible to maintain some form of curricular alignment by providing homework assistance and activities that promote basic skills learning. On the other hand, this could also be a challenge to creators of after-school and extended school-day programs, as it may be difficult to recruit, retain, and pay teachers to stay an extra few hours every day. Some of the staff may be tired after a full day's work, and others may simply not be interested. In other cases, it may also be difficult for the teaching staff to differentiate between academics as taught during the regular school day and academics as taught in after-school settings.

Recreational Component: Once the academic goals for the day have been fulfilled, recreational aspects of the development of the "whole child" can be worked on during the extended school-day period (Poinsett, 1996). In the past, many students grew up involved in extra-curricular activities such as "little league" baseball or softball in their neighborhood parks or on school fields. Evening and Saturday "little league" games provided the children with opportunities to play organized sports and develop social skills and values such as teamwork, good sportsmanship, coping strategies, and problem solving. Additionally, the little league coach often served as a role model for many of the children. Also, students often had opportunities to participate in drama, music, chess clubs, science clubs, and so on during the after-school hours.

Today, many inner-city neighborhood parks are drug infested, or unsafe for young children to play in. School and community budgets have been cut, and physical activities, clubs, and cultural experiences have become limited. The extended school-day period provides schools with an opportunity to bring recreational activities back to the children who need them the most. For example, Posner and Vandell (1994) note: "Unless they participated in an after-school program, enrichment lessons such as music and dance were not a part of the lives of these low-income children, nor did the children engage in team sports to a significant extent" (p. 25). The recreational portion of the program can provide the children with opportunities to develop whatever skills they choose. Some organizations that provide such opportunities for children during the non-school hours include the YMCA, YWCA, Boys and Girls Clubs of America, Boy Scouts, and Girl Scouts.

Cultural Component: The cultural component, like the recreational component, offers students opportunities to develop important skills that are not taught in the classroom. Examples of these include the development of hobbies, such as woodwork, fishing, sewing,

knitting, skating, learning to play musical instruments, and board games. Other life-enhancing skills that could be taught as part of the cultural component include etiquette, interviewing skills, dressing for success, conflict resolution, and respecting elders. There are organizations that have worked on these aspects of human development for years, and some programs have shown success in raising the self-esteem of students involved. Examples include Boy Scouts, Girl Scouts, 4-H Clubs, Big Brothers and Big Sisters. These long-established organizations have organized curriculum units aimed at achieving various non-academic goals.

Implementing Effective After-School Programs

Given that we can identify components that belong in an effective after-school program (although much research is still needed to fine-tune these components), strong implementation of the components must still be accomplished. After-school programs are highly diverse in purpose, funding, and quality, but there is a common set of implementation issues faced by most. For example, decisions must be made about who will attend the program, what to do if children attend irregularly or drop out, what types of paid staff and volunteers to recruit, how to obtain funding, how to provide adequate training for staff and volunteers, and so on. The following section addresses some factors that appear to be conducive to the implementation of a good after-school program, whether it is in a school, a community center, a church, or other location.

Train the Staff

Regardless of what the goals of the program may be, if the staff are not properly trained to implement the program well, it is doomed for failure. Training includes teaching the staff and volunteers how to work well with children, how to negotiate, how to adapt to the needs of different children of different ages, and how to implement the program components (academic, cultural, and recreational). Effective supervision of the staff, volunteers, and teachers is also essential. This should include implementation checks to make sure that the staff are comfortably and correctly carrying out their duties, staff meetings, and opportunities for problem solving. The staff should be trained to recruit and supervise productive and pro-active volunteers. Training makes the difference between programs that retain volunteers and staff and those that do not. If volunteers and staff do not receive adequate training, well intended adults who want to spend quality time with children may become frustrated, which may lead to a high attrition rate. Some programs, such as

AmeriCorps, Vista, and the Beacons, have well-organized procedures to train their staff effectively, but many other community programs do not have this capacity.

Some after-school and extended school-day programs exist not only to provide additional quality educational instruction, but also to improve community life during the hours of three and six in the afternoon. Programs that focus on improving the lives of the students and their families have two responsibilities to fulfill. Their first responsibility is to provide a well-functioning haven for the children and their families who are being served. Their second responsibility is to find qualified, well-trained, caring staff to work with the students in order to implement a positive after-school program. Some examples of programs that have been able to do this include the New York Beacons Program, LA's BEST, and the Baltimore Child First Authority. In addition to serving the children, the programs strive to involve the family *and* the community. Such programs encourage family and community to volunteer and play active roles.

Some programs may not attempt to train parents and community members to become assistants or tutors. Parents working with the programs may not be trained to use teaching methods which have been proven effective. Research in the field of school reform shows that factors that contribute to academic achievement include using trained professionals in the programs and using methods which have been proven to work beyond the original site (Fashola & 1998a; Slavin & Fashola, 1998c). This does not mean that we should eliminate funding for programs which do not hire "qualified" teachers for after-school or extended school-day programs but neither does it mean that we should keep untrained personnel in after-school programs. Instead, personnel working in after-school programs should be given the training they need to become effective in their roles. In some cases, if the purpose of the program is to include volunteers, parents, and community and church members in low-income communities, one might expect to receive quite a few "untrained" personnel as volunteers, like the N.Y. Beacons and LA's BEST programs. However, it is possible to train the community volunteers, while including school personnel. The extent to which the volunteers receive training will depend largely on the goals of the programs and the extent to which they plan to make a difference in the lives of the children.

Create a Program with Structure

Some studies (e.g., Pierce, Hamm, & Vandell, 1997; Posner & Vandell, 1994) have found that when the goal of the program is to enhance academic achievement, structure is essential. Reviews of research on effective school programs (Slavin, Karweit, & Madden

1989; Slavin, Karweit, & Wasik, 1994; Fashola & Slavin, 1997, 1998a, 1998b; Slavin and Fashola, 1998c; Block, Everson, & Guskey, 1995) show that academic programs that have been successful usually have clear goals, well developed procedures for attaining those goals, and extensive professional development. Similarly, programs implemented during the non-school hours need to adopt or create well-structured programs that provide extensive training. Many of the programs in this review — such as Voyager, Junior Great Books, Books and Beyond, and Project Success Enrichment — have relatively structured materials and training procedures. This is not to say that schools must implement pre-packaged academic programs from outside vendors. However, if a school plans or chooses to create and implement its own program, time must be put aside for structural and component planning, curriculum development, and training.

Evaluate the Program

Evaluation should be built into an after-school program. This means first that program planners need to be clear about what they hope to attain. LA's Best and the Beacons programs do not primarily claim to improve test scores, reduce television viewing, or improve reading scores; instead, their goal is to reduce crime and violence by providing children with safe havens in which they can be productively engaged. Issues that these programs address include drugs, teenage pregnancy, violence, and low self-esteem, and these issues should guide program design, day-to-day operation, staff training, and evaluation. In contrast, programs such as Voyager, Memphis Extended-Day Tutoring Program, ECRI, Howard Street Tutoring Program, and Project Success Enrichment should assess achievement gains. To be most valuable, these assessments should evaluate the gains of after-school program students by comparing them with a control or comparison group of students in the school or district who are similar to those in the program but who have not been exposed to it.

Include Families and Children in the Planning

Especially in programs that offer cultural and recreational programs during the non-school hours, families and the children themselves should be involved in the planning. If the activities to be offered are supposed to appeal to the interests of the children, they are certainly one of the best sources of knowledge about what will interest them. Generally, if the children and their parents choose the programs, they are more likely to stay involved.

Have an Advisory Board

Many school-based and community-based programs have an external board. LA's BEST, Beacons, Child First Authority, and Murfreesboro ESP are programs that maintain strong links between the community, families, religious organizations, and the school system. Such programs have boards made up of stakeholders who are responsible for the smooth running of the program and who make policy decisions about it.

Conclusions and Implications: What Works?

A summary chart of the programs reviewed in this report and their effectiveness is shown in Appendix 2. The chart and the full report support a conclusion that there is no straightforward answer to the question of what works best in after-school programs. The answer depends on why the program was set up, the extent to which the program designed addresses the needs of the participants, and the extent to which the program shows positive outcomes when evaluated for evidence of effectiveness. If the program was set up because of concerns about increasing amounts of crime and violence, then the program that works is one proven to alleviate this problem. If the program was set up to enhance academic gains, then the program that works is one proven to be effective for this purpose.

Our review shows that research on after-school programs is at a very rudimentary stage. Few studies of the effects of after-school programs on achievement or other outcomes meet minimal standards of research design. Almost all of these studies suffer from selection bias. Because after-school programs are seldom mandated for all children in a school, there is always some uncontrolled factor that influences why some children attend these programs and some do not. Most often, after-school programs are voluntary, so presumably it is more highly motivated children (or children of more motivated parents) who attend them. In other cases, after-school programs are set up to be remedial or to serve at-risk children, so those who attend them are likely to be worse off (before attending the program) than those who do not. Comparisons of alternative after-school programs have the same problem.

How can children who voluntarily attend an academic remediation program be compared to those who attend an academic enrichment program? And how can these two populations be compared to children who chose not to attend either? Simply controlling for prior achievement, grades, socioeconomic status, or other factors does not account for the obvious differences in motivations between children who select themselves into or whose parents select them into various programs.

There are solutions to these methodological problems, but they have rarely been applied. The best is to take a list of children applying for a given program and then randomly assign them to the program or to a waiting list control group. This assumes that the after-school program cannot serve all applicants, which is generally the case. The fact of applying and meeting other admission requirements ensures that the waiting list control group is equivalent in all important ways to the treatment group. Of all the programs reviewed in this report, only the Howard Street Tutoring Program (Morris, 1990) and the Memphis Extended-Day Tutoring Program (Ross et al., 1996) used random assignment of this kind.

A less conclusive variant of this approach is to compare students who signed up first to participate in an after-school program with those who signed up later. Again, the waiting list students can be assumed to be similar to those who participated. There may be differences between children who signed up early and those who signed up later, but this design is far better than one that does not take self-selection into account at all.

A third research strategy would be to compare all children in a school (or eligible grades) who had the opportunity to participate in an after-school program to all children in a matched control school who did not have such an opportunity. This comparison is appropriate only if a very high proportion of eligible children participate, and it might understate the program's effects because some of the children assessed would be ones who did not participate in the after-school program. However, this design would solve the problem of self-selection.

At this stage of research and development of after-school programs for elementary and secondary students, we find that there are a number of promising models in existence, many of which have encouraging but methodologically flawed evidence of effectiveness. Among programs intended to increase academic achievement, those that provide greater structure, a stronger link to the school-day curriculum, well-qualified and well-trained staff, and opportunities for one-to-one tutoring seem particularly promising, but these conclusions depend more on inferences from other research than from well-designed studies of the after-school programs themselves. Programs of all types, whether academic, recreational, or cultural in focus, appear to benefit from consistent structure, active community involvement, extensive training for staff and volunteers, and responsiveness to participants' need and interests.

After-school programs are increasing rapidly and receiving strong support from the Clinton administration, from Congress, and from state and local policy makers. As is often the case, this enthusiasm and rapid growth is running far ahead of the research base. We need

much more research on the effects of all types of after-school programs, especially those intended to enhance student achievement. There is a particular need for development and evaluation of replicable, well-designed programs capable of being used across a wide range of circumstances.

This report describes a variety of programs that are being or are capable of being used during the non-school hours. Educators and policy makers should see these programs as interesting alternatives that offer practical ideas and some indications for how after-school programs might be structured. This report provides after-school and extended-day program developers and directors, researchers, schools, and communities with the opportunity to see what is out there, to examine evidence of effects, and to build upon or select the components or programs that best fit their needs when designing after-school programs. However, there is much to be done before these or other programs can be considered proven, replicable means of increasing student achievement or other outcomes.

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Appendix 1

CONTACTS FOR INFORMATION ON PROGRAMS REVIEWED

Big Brothers Big Sisters of America
230 North 13th Street
Philadelphia, PA 19107
(215) 567-7000
http://www.bbbsa.org

Book Buddies
Mary Ann Elwood
Volunteer Coordinator
1400 Melbourne Road
Charlottesville, VA 22901
(804) 984-7038
http://curry.edschool.Virginia.EDU/curry/dept/cise/read/bookbuds

McGuffey Reading Center
Curry School of Education
University of Virginia
Ruffner Hall
405 Emmet Street
Charlottesville, Virginia 22903
Telephone: 804-924-3111

Book Buddies
Marcia Invernizzi
1828 Yorktown Drive
Charlottesville, VA 22901

Books and Beyond
Ellie Topolovac, Director or Ann Collins, Coordinator
Solana Beach School District
309 North Rios Avenue
Solana Beach, CA 92075
(619) 755-8000, (619) 755-3823, or (619) 755-6319
FAX (619) 755-0449
email: booksbey@sbsd.sdcoe.k12.ca.us
http://wwwsbsd.sdcoe.k12.ca.us/SBSD/SpecialProg/bb

Boys and Girls Clubs of America
1230 West Peachtree Street, NW
Atlanta, GA 30309
(404) 815-5700
email: swilder@bgca.org
http://www.bcga.org

Boys Scouts of America
http://www.bsa.scouting.org

Campfire Boys and Girls
Stewart J. Smith, Executive Director
4601 Madison Avenue
Kansas City, MO 64112-1278
(816) 756-1950
FAX (816) 756-0258
email: info@campfire.org
http://www.campfire.org

Child First Authority
Carol Reckling, Executive Director
The Child First Authority
34 Market Place, Suite 500
Baltimore, MD 21202

Girl Scouts of the U.S.A.
Elinor Johnstone Ferdon or Mary Rose Main
420 Fifth Avenue
New York, NY 10018-2798
(212) 852-8000
http://www.gsusa.org

Exemplary Center for Reading Instruction (ECRI)
Ethna R. Reid
Reid Foundation
3310 South 2700 East
Salt Lake City, UT 84109
(801) 486-5083 or (801) 278-2334
FAX (801) 485-0561

Fifth Dimension
Michael Cole
LCHC – 0092 UCSD
La Jolla, CA 92093
(619) 534-4590
http://communication.ucsd.edu/Fifth.Dimension/index.html
mcole@weber.ucsd.edu

Hands on Science Outreach (HOSO)
Benjamin Brandt, Executive Director
12118 Heritage Park Circle
Silver Spring, MD 20906
(301) 929-2330 or (888) HOSO-888
http://www.hands-on-science.org
email: hoso@radix.net

Helping One Student to Succeed (HOSTS)
William E. Gibbons
8000 N.E. Parkway Drive, Suite 201
Vancouver, WA 98662-6459
(206) 260-1995 or (800) 833-4678
FAX (206) 260-1783

Imaginitis Learning System
George E. Simon, Vice President Sales and Marketing or Lynne A. Cisney, Manager Sales Services
Imaginitis Interactive, Inc.
Suite 301, 435 Devon Park Drive
Wayne, PA 19087
(800) 610-2549

Increased Maximal Performance by Activating Critical Thinking (IMPACT)
S. Lee Winocur, Ph.D., National Director
Center for the Teaching of Thinking
21412 Magnolia Street
Huntington Beach, CA 92646
(714) 964-3106

Phi Delta Kappa
Eighth Street and Union Avenue, Box 780
Bloomington, IN 47402-0789
(812) 339-1156

Junior Great Books Curriculum (JGBC)
The Great Books Foundation
35 East Wacker, Suite 2300
Chicago, IL 60601-2298
(800) 222-5870

LA's BEST
Carla Sanger, President
City Hall East #520, Mayor's Office
200 N. Spring St.
Los Angeles, CA 90012
(213) 847-3681
FAX (213) 845-6606

Martinez Police Activities League (PAL)
Office Jim O'Neal, Executive Director
2910 Terrace Way
Martinez, CA 94553
(510) 335-0458 or Voice Mail: (510) 372-3459
FAX (510) 335-0924
http://www.martinezpal.org

National 4-H
http://www.fourhcouncil.edu
http://www.4h-usa.org

New York City Beacons
Michele Cahill
Vice-President for the Fund of the City of New York
121 Sixth Avenue
New York, NY 10013
(212) 925-6675
http://www.ericps.ed.uiuc.edu/npin/resrwork/innovate/beacon.html

Reading Recovery
Dr. Carol A. Lyons, Gay Su Pinnell, or Diane E. DeFord
Reading Recovery Program
The Ohio State University
200 Ramseyer Hall
29 West Woodruff Avenue
Columbus, OH 43210
(614) 292-7807

Study Skills Across the Curriculum
Patricia S. Olson, Director
ISD 197-Study Skills Across the Curriculum
1897 Delaware Avenue
West St. Paul, MN 55118
(612) 681-0844 or (612) 898-3002
FAX (612) 681-0879

Project Success Enrichment/Art
Carolyn Bronson, Project Director
Box 22447
Seattle, WA 98122-0447
(206) 325-5418

Voyager Expanded Learning
http://www.thinkvoyager.com
(888) 399-1995 or (214) 631-0999

CRESPAR

Johns Hopkins University
Center for Social Organization of Schools
3505 North Charles Street
Baltimore MD 21218
410-516-8800 / 410-516-8890 fax

Howard University
2900 Van Ness Street, NW
Washington DC 20008
202-806-8484 / 202-806-8498 fax